



Physical Properties Data Sheets

Release date: JULY 18, 2016

www.monmouthrubber.com

Monmouth Rubber & Plastics Corp, 75 Long Branch Avenue, Long Branch, NJ 07740 U.S.A

Intl: +1 732-229-3444 Toll Free: (800) 375-1960 Email: Sales@Monmouthrubber.Com Website: www.monmouthrubber.com



TECHNICAL DATA SHEETS	PAGE
100% Closed Cell Neoprene - Durafoam C41NEO, C42NEO and C43NEO Series	3
100% Neoprene - Durafoam N231 and N207	4
100% Neoprene - Durafoam N231XS	5
100% Pure Nitrile Rubber - Durafoam NBR Series	6
Closed Cell Epichlorohydrin (ECH) - Durafoam C41ECH, C42ECH, C43ECH, C44ECH and C45ECH Series	7
EPDM 100% Chrysler MS-AY-430 B3	8
EPDM 100% Low Density Thermoformable	9
EPDM Blend - Durafoam PMR150	10
EPDM Series - Durafoam C191XLDS	11
EPDM Series - Durafoam P191HD	12
EPDM Series - Durafoam P192HD	13
EPDM Series - Durafoam P291HD and P292HD	14
EPDM Series - Durafoam P391SHD	15
EPDM Series - Durafoam P392SHD	16
EPDM Series - Durafoam P497SHD and P493SHD	17
NBR PVC Blend - Durafoam S88 Grey	18
NBR PVC Blend - Durafoam S88 - Tan.pdf	19
NBR PVC NEO Blend - Durafoam IVN41	20
Neoprene Blend - Durafoam C110FR Series	21
Neoprene Blend - Durafoam C121A Series	22
Neoprene Blend - Durafoam C210FR Series	23
Recycled Rubber - Bondaflex B29CS multi-color - Actual Results	24
Recycled Rubber - Bondaflex B33CS Test Report	25
Recycled Rubber - Bondaflex B33CS used at Croton Reservoir	26
Recycled Rubber - Bondaflex B33CS	27
Superbounce 57 and 90	28
UL Listed EPDM NEOPRENE Closed Cell Rubber Blend - Durafoam DK Series - DK111, DK2121, DK3131, DK4141 and DK5151	29
EPDM 100% series Ultraviolet & Ozone Test Reports	30
QUICK INFO.LINK - SDS and RoHs Downloads for all Technical Data Sheets	31-32

Monmouth Rubber & Plastics Corp, 75 Long Branch Avenue, Long Branch, NJ 07740 U.S.A

Intl: +1 732-229-3444 Toll Free: (800) 375-1960 Email: Sales@Monmouthrubber.com Website: www.monmouthrubber.com



**MANUFACTURER OF
CLOSED CELL SPONGE RUBBER
& PLASTIC FOAM**

**MADE IN AMERICA
TRUSTED THROUGHOUT THE
WORLD**

OCTOBER 2013

DURAFOAM™ C41NEO, C42NEO, C43NEO 100% CLOSED CELL NEOPRENE

PHYSICAL PROPERTIES	DURAFOAM [®] C41NEO	DURAFOAM [®] C42NEO	DURAFOAM [®] C43NEO
Polymer	100% Neoprene	100% Neoprene	100% Neoprene
Color	Black	Black	Black
Specifications: ASTM-D 1056-12 ASTM-D 1056-67 SAE J18-02	2C1 SCE41 2C1	2C2 SCE42 2C2	2C3 SCE43 2C3
25% Compression Deflection (PSI)	2 - 5	5-9	9-13
Shore OO Durometer (Approximate)	30 - 50	40-60	50-70
Density (Approximate P.C.F.)	7 - 13	8-14	12-20
Water Absorption by Weight	5%	5%	5%
Temperature Range	-70 to 200F	-70 to 200F	-70 to 200F
Weather Resistance: UV Ozone	Excellent Excellent	Excellent Excellent	Excellent Excellent
Accelerated Linear Shrinkage (Typical)	5%	5%	5%
Fuel B Resistance % (Max)	250	250	250
Tensile Strength (Typical)	60 PSI	70 PSI	80 PSI
Elongation (Typical)	150%	150%	150%
Flammability: FM VSS No. 302 ASTM D 6576 UL 94 HBF UL 94 HF1	Pass Pass Pass Pass	Pass Pass Pass Pass	Pass Pass Pass Pass

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com



**ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033**



Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and **"Ask John"**.



September 2012

PHYSICAL PROPERTIES CHART

DURAFOAM™ N231 & N207 **100% NEOPRENE**

DURAFOAM™ CLOSED CELL SPONGE RUBBER & PLASTIC FOAM

“SIMPLY THE BEST”

TYPICAL PHYSICAL PROPERTIES	TEST METHOD	DURAFOAM N231	DURAFOAM N207
POLYMER		100% NEOPRENE	100% NEOPRENE
COLOR		BLACK	BLACK
ASTM D 1056 91, 98 & 00 ASTM D-1056-07 ASTM-D-1056-68 & 78 SAE J18 (APR2002) CLASSIFICATION		2C1 2C1	2C2 & 2C3 2C2 & 2C3
DENSITY (LBS/FT ³) APPROX.	ASTM-D-1056	12	17
COMPRESSION DEFLECTION 25%	ASTM-D-1056	2 TO 5 PSI	5 TO 13 PSI
COMPRESSION SET (%)	ASTM-D-1056	< 25%	< 25%
TENSILE STRENGTH (LB/IN)	ASTM-D-412 (Die A)	200 PSI MIN.	200 PSI MIN.
TEAR STRENGTH (LB/IN)	ASTM-D-624 (Die C)	40	40
ELONGATION (%) MIN.	ASTM-D-412 (Die A)	400%	400%
WATER ABSORPTION, MAX. WEIGHT CHANGE %	ASTM-D-1056	< 5%	< 5%
COLD CRACK (%) -40° F	NO CRACKS	NO CRACKS	NO CRACKS
COMBUSTION CHARACTERISTICS	FMVSS-302	PASS	PASS

This data and information is provided as a technical service and is subject to change without notice. Some of the above information may be provided from outside sources and MRPC relies on those sources to provide accurate information. Test results provided based on our own lab testing is believed to be accurate and is provided to the best of our ability based on our knowledge of the test methods and specifications listed. However, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore customer sample evaluation and approval of any material is suggested. MRPC will provide free of charge samples of its materials to assist customers in their evaluation to determine the safety, fitness and suitability of the product for the application and use by the user and by any third party which may use the product. MRPC cannot control the final use of the product and, therefore, does not guarantee the performance or the exact duplication of the results published in this document. For technical evaluation and support, please contact John M. Bonforte, Sr. Ext. 12 or email: johnsr@monmouthrubber.com



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

“Ask John” is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem?

Just email johnsr@monmouthrubber.com.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888

FAX 800-375-1962

Int'l Phone 1-732-229-3444

Int'l Fax 1-732-229-0711

E-mail sales@monmouthrubber.com

Internet www.rubberplastics.com



September 2012

PHYSICAL PROPERTIES CHART

DURAFOAM™ N231XS **100% NEOPRENE**

DURAFOAM™ CLOSED CELL SPONGE RUBBER & PLASTIC FOAM
“SIMPLY THE BEST”

TYPICAL PHYSICAL PROPERTIES	DURAFOAM N231XS
POLYMER	100% NEOPRENE
COLOR	BLACK
DENSITY (LBS/FT ³) APPROX.	8
COMPRESSION DEFLECTION 25%	2 TO 5 PSI
COMPRESSION SET (%)	< 25%
TENSILE STRENGTH (LB/IN)	100 PSI MIN.
TEAR STRENGTH (LB/IN)	20
ELONGATION (%) MIN.	300%
DUROMETER, SHORE 00, APPROX.	30 TO 40

This data and information is provided as a technical service and is subject to change without notice. Some of the above information may be provided from outside sources and MRPC relies on those sources to provide accurate information. Test results provided based on our own lab testing is believed to be accurate and is provided to the best of our ability based on our knowledge of the test methods and specifications listed. However, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore customer sample evaluation and approval of any material is suggested. MRPC will provide free of charge samples of its materials to assist customers in their evaluation to determine the safety, fitness and suitability of the product for the application and use by the user and by any third party which may use the product. MRPC cannot control the final use of the product and, therefore, does not guarantee the performance or the exact duplication of the results published in this document. For technical evaluation and support, please contact John M. Bonforte, Sr. Ext. 12 or email: johnsr@monmouthrubber.com



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

“Ask John” is Monmouth’s global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth’s customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem?
Just email johnsr@monmouthrubber.com.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888

FAX 800-375-1962

Int'l Phone 1-732-229-3444

Int'l Fax 1-732-229-0711

E-mail sales@monmouthrubber.com

Internet www.rubberplastics.com



MANUFACTURER OF
**CLOSED CELL SPONGE RUBBER
& PLASTIC FOAM**

MADE IN AMERICA
TRUSTED THROUGHOUT THE
WORLD

SEPTEMBER 2015

**DURAFOAM™ NBR SERIES
100% PURE NITRILE RUBBER
TYPICAL PHYSICAL PROPERTIES**

PHYSICALS	DURFOAM C41NBR	DURAFOAM C42NBR	DURAFOAM C43NBR
POLYMER	NITRILE BUTADIENE RUBBER (NBR)	NITRILE BUTADIENE RUBBER (NBR)	NITRILE BUTADIENE RUBBER (NBR)
COLOR	BLACK	BLACK	BLACK
ASTM-D-1056-67 CLASSIFICATION	SBE 41	SBE 42	SBE 43
ASTM D-1056-14 CLASSIFICATION	2B1	2B2	2B3
25% COMPRESSION DEFLECTION (psi)	2 to 5	5 to 9	9 to 13
DENSITY (lbs/ft ³), Minimum, Approx.	7	8	10
WATER ABSORPTION, By Weight ASTM-D-1056 (max).	5%	5%	5%
TENSILE (psi)	70 min.	100 min.	110 min.
ELONGATION (%)	140% min.	140% min.	175% min.
COMPRESSION SET ASTM-D 1056	<25%	<25%	<25%
TEMPERATURE RESISTANCE, LOW°F/HIGH°F	-40 / +250	-40 / +250	-40 / +250
FLAMMABILITY – FMVSS302	PASS	PASS	PASS
FLUID IMMERSION MAX %	ALLOWED 100%	50%	50%

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com



**ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033**



Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and "Ask John".

Monmouth Rubber & Plastics Corp., 75 Long Branch Ave., Long Branch, N.J. 07740
Phone: 888-FOAM-888 Ext.11 Int'l Phone: 1-732-229-3444 Ext.12 Fax: 1-800-375-1962 Int'l Fax: 1-732-229-0711
Email: johnsr@monmouthrubber.com Web: www.MonmouthRubber.com



March 2010

PHYSICAL PROPERTIES CHART

DURAFOAM™ **CLOSED CELL EPICHLOROCHYDRIN** **(ECH)**

STOCK NUMBER	C41 ECH	C42 ECH	C43 ECH	C44 ECH	C45 ECH
Polymer	ECH	ECH	ECH	ECH	ECH
Color	Black	Black	Black	Black	Black
Specifications: ASTM-D-1056 SAE-J-18 APR2002	2B1 2B1	2B2 2B2	2B3 2B3	2B4 2B4	2B5 2B5
Density, Approx, ASTM-D-1056	15 approx	15 approx	18 approx	19 approx	23 approx
Compression Deflection, 25% ASTM-D-1056	2 to 5 psi	5 to 9 psi	9 to 13 psi	13 to 17 psi	17 to 25 psi
Compression Set, ASTM-D-1056	≤ 25%	≤ 25%	≤ 25%	≤ 20%	≤ 20%
Tensile Strength, ASTM-D-412 (Die A)	120 psi	90 psi	100 psi	110 psi	150 psi
Tear Strength, ASTM-D-624 (Die C)	18 lb/in	20 lb/in	20 lb/in	25 lb/in	50 lb/in
Elongation, ASTM-D-412 (Die A)	250%	175%	175%	150%	150%
Resilience, ASTM-D-2632	45%	30%	35%	28%	15%
Temp Resistance, ASTM-D-746 Low High Continuous High Intermittent	-40°F +300°F +325°F	-40°F +300°F +325°F	-40°F +300°F +325°F	-40°F +300°F +325°F	-40°F +300°F +325°F
Water Absorption Max Weight Change, ASTM-D-1056	<5%	<5%	<5%	<5%	<5%
Fluid Immersion (7 days at 73.4°F) ASTM Ref. Fuel B, Weight Change, ASTM-D-1056	<50%	<50%	<50%	<50%	<50%
Accelerated Aging (7 days at 158°F). ASTM-D-1056 Flexibility (180° bend without cracking) Appearance Change Change in Comp. Deflection	Pass None +/- 30%	Pass None +/- 30%	Pass None +/- 30%	Pass None +/- 30%	Pass None +/- 30%
Combustion Characteristics, FMVSS-302	Pass	Pass	Pass	Pass	Pass

This data and information is provided as a technical service and is subject to change without notice. Some of the above information may be provided from outside sources and MRPC relies on those sources to provide accurate information. Test results provided based on our own lab testing is believed to be accurate and is provided to the best of our ability based on our knowledge of the test methods and specifications listed. However, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore customer sample evaluation and approval of any material is suggested. MRPC will provide free of charge samples of its materials to assist customers in their evaluation to determine the safety, fitness and suitability of the product for the application and use by the user and by any third party which may use the product. MRPC cannot control the final use of the product and, therefore, does not guarantee the performance or the exact duplication of the results published in this document. For technical evaluation and support, please contact John M. Bonforte, Sr, Ext. 12 or email: johnsr@monmouthrubber.com



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and **"Ask John"**.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888 EXT.12 FAX 800-375-1962

Int'l Phone 1-732-229-3444 Int'l Fax 1-732-229-0711

E-mail johnsr@monmouthrubber.com Internet <http://www.rubberplastics.com>



MANUFACTURER OF
**CLOSED CELL SPONGE RUBBER
& PLASTIC FOAM**



EPDM 100% Chrysler MS-AY-430 B3 TYPICAL PHYSICAL PROPERTIES

SEPTEMBER 2015

PHYSICALS	DURAFOAM™ P484	DURAFOAM™ C191XLDS	DURAFOAM™ P404	DURAFOAM™ P426	DURAFOAM™ P423
TENSILE STRENGTH, kPa, Min	85	200	375	750	840
ELONGATION, 150% Min	160	150	180	200	200
TEAR RESISTANCE, kN/m, Min	.5	1.05	1.1	1.25	1.38
COMPRESSION/DEFLECTION, kPa, at 25% DEFLECTION	12	14-42	20	63	95
HEAT AGE COMPRESSION DEFLECTION, % MAX CHANGE; 7 DAYS AT 70°C	10	29	22.4	26	18.5
COMPRESSION SET, % MAX 22 HRS @ 23°C	18	45	22	19	18
HEAT RESISTANCE, 2 HOURS @ 150°C					
LENGTH LOSS, % MAX	12	15	8.2	7.8	6.9
WIDTH LOSS, % MAX	11	15	7.9	5.6	5.9
THICKNESS LOSS, % MAX	8	10	2	2	2
WATER ABSORPTION, %	8.2	9	4	2.1	2.0
SURFACE CONTAMINATION	None	None	None	None	None
OZONE RESISTANCE	R0	R0	R0	R0	R0
LOW TEMPERATURE FLEXIBILITY, -40°C	No Cracks	No Cracks	No Cracks	No Cracks	No Cracks
STAIN RESISTANCE	No Staining	No Staining	No Staining	No Staining	No Staining

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation and testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com



**ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033**



Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and "Ask John".



**MANUFACTURER OF
CLOSED CELL SPONGE RUBBER
& PLASTIC FOAM**



MARCH 2016

DURAFOAM™ CLOSED CELL LOW DENSITY 100% EPDM, THERMOFORMABLE

PHYSICAL PROPERTIES	DURAFOAM™ P1921LDTF, P1924LDTF
Polymer	100% EPDM
Color – Black	P1921LDTF
Color – Tan	P1924LDTF
ASTM-D 1056-67	RE-42
ASTM-D 1056-14	2A2
Suffix Requirements	C1, F2, M, P
25% Compression Deflection (PSI)	5-9 PSI
Density (lb/ft³) approx.	5
Water Absorption	Under 5%
Tensile (PSI)	50 min
Elongation % Min	300%
Flammability – FMVSS302	PASS
Ozone Resistance: Ozone 20% Stress, 72 HRS @ 100 PPHM, ASTM-D-1171-94; 1149-91; GM6086M; GM4486P; CHRYSLER MSAY 527	EXCELLENT 0 CRACKS PASS
Low Temp – Cold Bend 5 HRS Per ASTM-D 1056-14	-90°F
Split Tear	13.8lbs/in.

GUARANTEED 100% RECYCLABLE

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.



**ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033**



Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test Lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and **"Ask John"**.

Monmouth Rubber & Plastics Corp., 75 Long Branch Ave., Long Branch, N.J. 07740
Phone: 888-FOAM-888 Ext.11 Int'l Phone: 1-732-229-3444 Ext.12 Fax: 1-800-375-1962 Int'l Fax: 1-732-229-0711
Email: johnsr@monmouthrubber.com Web: www.MonmouthRubber.com

April 2005

INTRODUCING . . . **DURAFOAMTM PMR 150**

Black EPDM – Thermoformable

PROPERTIES	TEST METHOD	RESULT
Polymer		EPDM / Polyolefin Blend
Density (approx).	ASTM-D-3575	4.0 pcf approx.
Compression Deflection @ 25%	ASTM-D-1056-00	5 to 9 psi (2A2)
Ozone Resistance, ASTM-D-1171 72 hrs @ 102°F, 100 pphm ozone	ASTM-D-1171	Visual – No Cracks 2X Magnification – No Cracks
Ozone Resistance, ASTM-D-1171 168 hrs @ 102°F, 200 pphm ozone (Limit of test chamber)	ASTM-D-1171	Visual – No Cracks 2X Magnification – No Cracks
Low Temperature, -67°F	ASTM-D-1056-00	No Cracks
Low Temperature, -100°F (Limit of test chamber)	ASTM-D-1056-00	No Cracks
Ultraviolet Testing, 120 hours Light at 158°F for 8 hours Dark at 122°F for 4 hours Condensation Cooling at 15 min.	MRPC	Linear Shrinkage = 6.4% Surface Appearance = No Cracks Color Change = 0.83
Staining, white lacquer panel and aged under sunlamp exposure	ASTM-D-925	24 hours = No Staining 48 hours = No Staining 96 hours = No Staining

High Performance Features

- Softness, stiffness & density infinitely variable.
- High Ozone Resistance.
- High Ultraviolet Resistance.
- Non-Staining.
- Made from Heat Resistant EPDM
- Non-fogging (plasticizer free).
- Dimensionally Stable (Very Low Shrinkage).
- Unique Soft, Supple, Real Rubber Feel.
- Very Fine Cell Structure.
- Thermoformable – deep draw potential
- Can be heat and flame laminated.
- Butt-weldable – Both heat and/or adhesive
- Bonds well to most pressure sensitive adhesives including economy rubber based adhesives.
- Available standard in black.
- Available on special order in custom bright colors.

**THE MONMOUTH RUBBER PMR SERIES
IS A FAMILY OF POLYOLEFIN
METALLOCENE RUBBER
FORMULATIONS, UNIQUE AND
PROPRIETARY TO THE
DURAFOAMTM PROCESS.**

Chemical Resistance

- Acetic acid, dilute, 10%.
- Acetone
- Acetylene
- Ammonia Gas.
- Animal Oils
- Boric Acid
- Butyl Alcohol (butanol).
- Carboic Acid (phenol).
- Carbon Dioxide, wet or dry.
- Castor Oil
- Critic Acid
- Copper Sulfate 150°F
- Ethyl Alcohol (ethanol)
- Fomaldehyde
- Hydrogen Gas
- Linseed Oil
- Oxygen
- Potassium Chloride
- Potassium Hydroxide
- Soap Solutions
- Sodium Chloride
- Sodium Hydroxide (caustic soda)
- Sodium Peroxide
- Sodium Thiosulfate (hypo)
- Sulfur
- Sulfuric acid, 11-75%
- Whiskey and wines
- Zinc Sulfate

PMR 150 is resistant to many other chemicals in addition to those listed above. Please contact us with your specific requirement.

MONMOUTH RUBBER & PLASTICS CORP.

75 LONG BRANCH AVE, LONG BRANCH, NJ 07740

PHONE: 888-FOAM-888 X13 FAX: 800-375-1962

E-mail sales@monmouthrubber.com Internet <http://www.rubberplastics.com>



**MANUFACTURER OF
CLOSED CELL SPONGE RUBBER
& PLASTIC FOAM**



APRIL 2, 2014

TYPICAL PHYSICAL PROPERTIES -- DURAFOAM™ C191XLDS

PHYSICAL PROPERTIES	RESULTS
Polymer	100% EPDM
Color	Black
Specifications: SAE J18 R02	2A1
ASTM-D-1056-86, 91, 00, 04, 07	2A1
CHRYSLER MS-AY430	Listed as Approved Supplier
CHRYSLER MS-AY527 (outdated)	Listed as Approved Supplier
GM6086M	Type IB , Type II
Density	4 pcf approx.
Compression Deflection, 25% PSI Compression, Varies with Thickness	2 to 5 Psi
Water Absorption by Weight, Max. ASTM Method D 1056	5% (10% allowed)
K. Factor – Constant	0.26
Ozone 20% Stress – 72 hrs. @ 100 PPHM GM 4486P, ASTM-D-1171-94, ASTM-D-1149-91	No Cracks
Weathering	Excellent
Ultraviolet	Excellent
Staining - RES.30.ST 133 Issue No. 2 (Europe)	No Staining
Combustion Characteristics – FMVSS-302	PASS
Service Temperature °F ASTM D 746	
Low	-70
High Continuous	220
High Intermittent	250

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.



**ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033**



Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and **"Ask John"**.

**TO BE 100% SURE . . . USE DURAFOAM™ 100% EPDM
"0" EMISSIONS – GUARANTEED TO BE 100% RECYCLABLE**

Monmouth Rubber & Plastics Corp., 75 Long Branch Ave., Long Branch, N.J. 07740
Phone: 888-FOAM-888 Ext.13 Int'l Phone: 1-732-229-3444 Ext.13 Fax: 1-800-375-1962 Int'l Fax: 1-732-229-0711
Email: sales@monmouthrubber.com Web: www.MonmouthRubber.com

November 2010



PHYSICAL PROPERTIES CHART
100% EPDM
DURAFOAM™ P191HD

PHYSICALS	DURAFOAM
STOCK NO.	P191HD
POLYMER	100% EPDM
COLOR	BLACK
SAE J18 SPECIFICATION	2A1 F2
ASTM-D-1056-98 CLASSIFICATION	2A1 F2
ASTM D-1056-00 CLASSIFICATION	2A1 F2
CHRYSLER MS-Z-75	2A1 F2
25% COMPRESSION DEFLECTION (psi)	2 to 5
SHORE 00 DUROMETER (approx.)	30 to 50
DENSITY (lbs/sq.ft.), Approx.	10
WATER ABSORPTION, By Weight, Max.	5%
TEMPERATURE RANGE, °F	-90°F to +275°F
WEATHER RESISTANCE, UV	EXCELLENT
WEATHER RESISTANCE, OZONE	EXCELLENT
ACCELERATED LINEAR SHRINKAGE	5%
TENSILE STRENGTH	50 PSI
ELONGATION (Typical)	150%
FLAMMABILITY, FMVSS NO. 302	PASS



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**.

Have a technical question or problem?
Just email johnsr@monmouthrubber.com,
or call 1-732-229-3444 Ext 12
and **"Ask John"**.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888

FAX 800-375-1962

E-mail sales@monmouthrubber.com

Internet <http://www.rubberplastics.com>

November 2010



PHYSICAL PROPERTIES CHART
100% EPDM
DURAFOAM™ P192HD

PHYSICALS	DURAFOAM
STOCK NO.	P192HD
POLYMER	100% EPDM
COLOR	BLACK
SAE J18 SPECIFICATION	2A1 F2
ASTM-D-1056-98 CLASSIFICATION	2A1 F2
ASTM D-1056-00 CLASSIFICATION	2A1 F2
CHRYSLER MS-Z-75	2A1 F2
25% COMPRESSION DEFLECTION (psi)	2 to 5
SHORE 00 DUROMETER (approx.)	30 to 50
DENSITY (lbs/sq.ft.), Approx.	10
WATER ABSORPTION, By Weight, Max.	5%
TEMPERATURE RANGE, °F	-90°F to +275°F
WEATHER RESISTANCE, UV	EXCELLENT
WEATHER RESISTANCE, OZONE	EXCELLENT
ACCELERATED LINEAR SHRINKAGE	5%
TENSILE STRENGTH	50 PSI
ELONGATION (Typical)	150%
FLAMMABILITY, FMVSS NO. 302	PASS



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**.

Have a technical question or problem?
Just email johnsr@monmouthrubber.com,
or call 1-732-229-3444 Ext 12
and **"Ask John"**.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888

FAX 800-375-1962

E-mail sales@monmouthrubber.com

Internet <http://www.rubberplastics.com>

January 25, 2006



PHYSICAL PROPERTIES CHART
DURAFOAM™ 100% EPDM
P291HD & P292HD

TYPICAL PHYSICAL PROPERTIES	P291HD BLACK P292HD GREY
POLYMER	100% EPDM
ASTM-D-1056-00 CLASSIFICATION	2A2 F2
SAE J18-92	2A2 F2
CHRYSLER MS-Z-75	2A2 F2
25% COMPRESSION RESISTANCE (psi)	5 TO 9
C1 – OZONE EXPOSURE, ASTM-D- 1171, METH. A	PASS
F2 – LOW TEMPERATURE RESISTANCE, -67° F	PASS
M-COMBUSTION CHARACTERISTICS, TEST METHOD D5132 100 min/max (4 in./min, max)	PASS
DENSITY (lbs/ft ³) Approx.	11
WATER ABSORPTION (lbs/ft. ²)	.01 max.
WATER ABSORPTION, By Weight ASTM-D-1056 (max)	1% max.
TENSILE (psi) Typical	70
ELONGATION (%)	180% min.
FLAMMABILITY – FMVSS302	PASS
OZONE 20% STRESS – 72 hrs. @100 PPHM GM 4486P, ASTM-D-1171-94, ASTM-D-1149-91	NO CRACKS
WEATHERING	EXCELLENT
ULTRAVIOLET	EXCELLENT
STAINING – RES.30 ST 133 Issue No. 2 (Europe)	NO STAINING

Special Features

- Excellent chemical resistance
- 100% free of HCFC & CFC
- Available in custom colors upon request for quote
- Compatible with most general purpose adhesives

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888 FAX 800-375-1962

E-mail sales@monmouthrubber.com Internet <http://www.rubberplastics.com>



January 2011

PHYSICAL PROPERTIES CHART

DURAFOAM™ P391SHD

TYPICAL PHYSICAL PROPERTIES	DURAFOAM™ P391SHD
POLYMER	100% EPDM
COLOR	BLACK
ASTM D-1056-00 CLASSIFICATION	2A3
25% COMPRESSION RESISTANCE (psi)	9 TO 13
B2 - 50% COMPRESSION SET (%) max.	25
C1 – OZONE EXPOSURE, ASTM-D- 1171, METH. A	PASS
F2 – LOW TEMPERATURE RESISTANCE, -67° F	PASS
M-COMBUSTION CHARACTERISTICS, TEST METHOD D5132 100 min/max (4 in./min, max)	PASS
DENSITY (lbs/ft ³) approx	15
WATER ABSORPTION (lbs/ft. ²)	.01 max.
WATER ABSORPTION, By Weight ASTM-D-1056 (max)	1% max.
TENSILE (psi)	150 min.
ELONGATION (%)	200% min.
FLAMMABILITY – FMVSS302	PASS
LOW TEMPERATURE FLEXIBILITY	-80° F
OZONE 20% STRESS – 72 hrs. @100 PPHM GM 4486P, ASTM-D-1171-94, ASTM-D-1149-91	NO CRACKS
WEATHERING	EXCELLENT
ULTRAVIOLET	EXCELLENT
STAINING – RES.30 ST 133 Issue No. 2 (Europe)	NO STAINING

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.



**ISO CERTIFIED
TO 9001:2008**

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and **"Ask John"**.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE: 888-FOAM-888

FAX: 800-375-1962

Email: sales@monmouthrubber.com

Internet: www.rubberplastics.com



January 2011

PHYSICAL PROPERTIES CHART

DURAFOAM™ P392SHD

TYPICAL PHYSICAL PROPERTIES	DURAFOAM™ P392SHD
POLYMER	100% EPDM
COLOR	GREY
ASTM D-1056-00 CLASSIFICATION	2A3
25% COMPRESSION RESISTANCE (psi)	9 TO 13
B2 - 50% COMPRESSION SET (%) max.	25
C1 – OZONE EXPOSURE, ASTM-D- 1171, METH. A	PASS
F2 – LOW TEMPERATURE RESISTANCE, -67° F	PASS
M-COMBUSTION CHARACTERISTICS, TEST METHOD D5132 100 min/max (4 in./min, max)	PASS
DENSITY (lbs/ft ³) approx	15
WATER ABSORPTION (lbs/ft. ²)	.01 max.
WATER ABSORPTION, By Weight ASTM-D-1056 (max)	1% max.
TENSILE (psi)	150 min.
ELONGATION (%)	200% min.
FLAMMABILITY – FMVSS302	PASS
LOW TEMPERATURE FLEXIBILITY	-80° F
OZONE 20% STRESS – 72 hrs. @100 PPHM GM 4486P, ASTM-D-1171-94, ASTM-D-1149-91	NO CRACKS
WEATHERING	EXCELLENT
ULTRAVIOLET	EXCELLENT
STAINING – RES.30 ST 133 Issue No. 2 (Europe)	NO STAINING
STANDARD SHEET SIZE	42" X 54"

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.



**ISO CERTIFIED
TO 9001:2008**

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and "Ask John".

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE: 888-FOAM-888

FAX: 800-375-1962

Email: sales@monmouthrubber.com

Internet: www.rubberplastics.com



July 2010

PHYSICAL PROPERTIES CHART

DURAFOAM™ **HIGH PERFORMANCE 100% EPDM**

TYPICAL PHYSICAL PROPERTIES	DURAFOAM P497SHD	DURAFOAM P493SHD
POLYMER	100% EPDM	100% EPDM
COLOR	GREY	BLACK
ASTM D-1056-00 CLASSIFICATION	2A3	2A3
25% COMPRESSION RESISTANCE (PSI)	9 TO 13	9 TO 13
B2 – 50% COMPRESSION SET (%) MAX.	25	25
C1- OZONE EXPOSURE, ASTM-D- 1171, METH. A	PASS	PASS
F2 – LOW TEMPERATURE RESISTANCE, -67° F	PASS	PASS
M – COMBUSTION CHARACTERISTICS, TEST METHOD D5132 100 MIN/MAX (4IN./MIN,MAX)	PASS	PASS
DENSITY (LBS/FT³)	16 - 25	16 - 25
WATER ABSORPTION (LBS/FT³)	.01 MAX.	.01 MAX.
WATER ABSORPTION, BY WEIGHT ASTM-D-1056 (MAX)	5% MAX	5% MAX
TENSILE (PSI)	110 MIN	110 MIN
ELONGATION (%)	200% MIN	200% MIN
HIGH TEMPERATURE	300°F	300°F
FLAMMABILITY – FMSS302	PASS	PASS
OZONE 20% STRESS – 72 HRS. @ 100 PPHM GM 4486P, ASTM-D-1171-94, ASTM-D-1149-91	NO CRACKS	NO CRACKS
WEATHERING	EXCELLENT	EXCELLENT
ULTRAVIOLET	EXCELLENT	EXCELLENT
STAINING – RES.30 ST 133 ISSUE NO. 2 (EUROPE)	NO STAINING	NO STAINING

This data and information is provided as a technical service and is subject to change without notice. Some of the above information may be provided from outside sources and MRPC relies on those sources to provide accurate information. Test results provided based on our own lab testing is believed to be accurate and is provided to the best of our ability based on our knowledge of the test methods and specifications listed. However, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore customer sample evaluation and approval of any material is suggested. MRPC will provide free of charge samples of its materials to assist customers in their evaluation to determine the safety, fitness and suitability of the product for the application and use by the user and by any third party which may use the product. MRPC cannot control the final use of the product and, therefore, does not guarantee the performance or the exact duplication of the results published in this document. For technical evaluation and support, please contact John M. Bonforte, Sr, Ext. 12 or email: johnsr@monmouthrubber.com



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888 EXT.12 FAX 800-375-1962

Int'l Phone 1-732-229-3444 Int'l Fax 1-732-229-0711

E-mail johnsr@monmouthrubber.com Internet <http://www.rubberplastics.com>



SEPTEMBER 2007
TYPICAL PHYSICAL PROPERTIES
DURAFOAM™ S88, GREY

PHYSICAL PROPERTY	TEST METHOD	UNITS	DURAFOAM™ S88
Polymer			PVC/NBR
Color			GREY
Density APPROX	ASTM-D-1056	Pcf	6
Compression Deflection @ 25%	ASTM-D-1056	Psi	6.5
C/D Heat Aging 7 days @ 158°F	ASTM-D-1056	% Max	30
Shore 00 Durometer			50
Compression Set (50%)	ASTM-D-1056	% Max	25
Tensile	ASTM-D-412	Psi Min.	120
Elongation	ASTM-D-412	% Min.	175
Fluid Immersion	ASTM-D-1056	Wt % Max.	50
Water Absorption	ASTM-D-1056 ASTM-D-1667	Wt % Max. Wt. % Max.	5 0.10
Linear Shrinkage 7 days @ 158°F	ASTM-C-534	% Max.	5
Ozone Resistance 72 hrs @ 50PPHM	ASTM-D-1171	Rating	0
Thermal Conductivity @ 75°F	ASTM C 177		0.30
Resilience (1/2" thk. @ 72°F) Bashore (% Rebounded Average)			12 – 18
Temperature Use: Cold Crack High	ASTM-D-1056	°F °F	-10°F +225°F
Flammability Rating	FMVSS302	O FLAME OUT	PASS
Sheet Size	+/- 3%	Inches	54 x 72"
Specifications:	ASTM-D-1056-67 ASTM-D-1056-98		SBE 41/42 2B1/2

This data and information is provided as a technical service and is subject to change without notice. Some of the above information may be provided from outside sources and MRPC relies on those sources to provide accurate information. Test results provided based on our own lab testing is believed to be accurate and is provided to the best of our ability based on our knowledge of the test methods and specifications listed. However, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore customer sample evaluation and approval of any material is suggested. MRPC will provide free of charge samples of its materials to assist customers in their evaluation to determine the safety, fitness and suitability of the product for the application and use by the user and by any third party which may use the product. MRPC cannot control the final use of the product and, therefore, does not guarantee the performance or the exact duplication of the results published in this document. For technical evaluation and support, please contact John M. Bonforte, Sr, Ext. 12 or email: johnsr@monmouthrubber.com



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and **"Ask John"**.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY
75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740
PHONE 888-FOAM-888 EXT.12 FAX 800-375-1962
E-mail johnsr@monmouthrubber.com Internet <http://www.rubberplastics.com>



SEPTEMBER 2005
TYPICAL PHYSICAL PROPERTIES
DURAFOAM™ S88, NATURAL (Tan)

PHYSICAL PROPERTY	TEST METHOD	UNITS	DURAFOAM™ S88
Polymer			PVC/NBR
Color			NATURAL (TAN)
Density	ASTM-D-1056	Pcf	6
Compression Deflection @ 25%	ASTM-D-1056	Psi	6.5
C/D Heat Aging 7 days @ 158°F	ASTM-D-1056	% Max	30
Shore 00 Durometer			50
Compression Set (50%)	ASTM-D-1056	% Max	25
Tensile	ASTM-D-412	Psi Min.	120
Elongation	ASTM-D-412	% Min.	175
Fluid Immersion	ASTM-D-1056	Wt % Max.	50
Water Absorption	ASTM-D-1056 ASTM-D-1667	Wt % Max. Wt. % Max.	5 0.10
Linear Shrinkage 7 days @ 158°F	ASTM-C-534	% Max.	5
Ozone Resistance 72 hrs @ 50PPHM	ASTM-D-1171	Rating	0
Thermal Conductivity @ 75°F	ASTM C 177		0.30
Resilience (1/2" thk. @ 72°F) Bashore (% Rebounded Average)			12 - 18
Temperature Use: Cold Crack High	ASTM-D-1056	°F °F	-10°F +225°F
Flammability Rating	FMVSS302		PASS
Sheet Size	+/- 3%	Inches	54 x 72"
Specifications:	ASTM-D-1056-67 ASTM-D-1056-98		SBE 41/42 2B1/2

This data and information is provided as a technical service and is subject to change without notice. Some of the above information may be provided from outside sources and MRPC relies on those sources to provide accurate information. Test results provided based on our own lab testing is believed to be accurate and is provided to the best of our ability based on our knowledge of the test methods and specifications listed. However, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore customer sample evaluation and approval of any material is suggested. MRPC will provide free of charge samples of its materials to assist customers in their evaluation to determine the safety, fitness and suitability of the product for the application and use by the user and by any third party which may use the product. MRPC cannot control the final use of the product and, therefore, does not guarantee the performance or the exact duplication of the results published in this document. For technical evaluation and support, please contact John M. Bonforte, Sr, Ext. 12 or email: johnsr@monmouthrubber.com



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and "Ask John".

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY
75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740
PHONE 888-FOAM-888 EXT.12 FAX 800-375-1962
E-mail johnsr@monmouthrubber.com Internet <http://www.rubberplastics.com>



September 2012

TYPICAL PHYSICAL PROPERTIES **DURAFOAM™ IVN41**

PHYSICALS	TEST	DURAFOAM™ IVN 41
POLYMER		NEO/PVC/NBR
COLOR		BLACK
SPECIFICATIONS: ASTM-D-1056-68 ASTM-D-1056-07 Suffix Requirements		SBE41 2B1 C1, F1, M
COMPRESSION RESISTANCE, 25% (psi)	ASTM-D-1056	2.0 to 5.0 psi
COMPRESSION SET, (%)	ASTM-D-1056	40 max.
DENSITY (lb/ft3)	ASTM-D-1056	3.0 to 5.0
WATER ABSORPTION (lb/ft2)	ASTM-D-1667	0.1 max.
TENSILE	ASTM-D-412	40 min.
ELONGATION	ASTM-D-412	100 min.
FLAMMABILITY: FMVSS302 UL94 FAR 25.853 (a) Appendix F, Part 1 (in)	0 Burn Rate HFB @ 1/8"	Pass Pass 1/4
TEMPERATURE USE	ASTM-D-1056	Cold Crack -40 High +200
K FACTOR (BTU)		0.27 Constant

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.

“0” EMISSIONS – GUARANTEED TO BE 100% RECYCLABLE



**ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033**

Have a Technical Question?

“Ask John” is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and **“Ask John”**.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888

FAX 800-375-1962

Int'l Phone 1-732-229-3444

Int'l Fax 1-732-229-0711

Email sales@monmouthrubber.com

Internet: www.rubberplastics.com



May 2011

DURAFOAM™ C110FR **NEOPRENE/EPDM/POLYMERIC BLEND**

CERTIFIED TEST REPORT TO FDA REGULATION CFR 21, PART 177.2600

Color	Off White	Elongation	325%
ASTM-D-1056-99	2C1	Density, Approximate	6 pcf
SAE J18 (Rev. July 1992)	2C1	Shore 00 Durometer	30 approx.
Compression Set (ASTM-D-1056) Suffix B, 25% max.	20% PASS	Compression Deflection @ 25%	4.0 psi
Mil-R-6130, Type II, Grade A, B & C	PASS	Ozone Resistance, ASTM-D-1171 72 hrs @ 102°F, 50 pphm ozone	No Cracks -- PASS
Mil-C-3133, SCE 42 & SCE 7	PASS	UV Resistance, 120 hr QUV Ultra-violet light exposure	EXCELLENT
Oil Resistance, Fluid immersion 7 days @ 23°C or 74°F	PASS	Flame Retardant, UL94-HF1	Self-Extinguishing - PASS

High Performance Features

- High Heat Resistance
- Low Compression Set
- Dimensionally Stable (Very Low Shrinkage)
- Unique Soft, Supple, Real Rubber Feel
- Very Fine Cell Structure
- High Coefficient of Friction for anti-skid applications such as mouse pads
- Bonds well to most pressure sensitive adhesives including economy rubber based products
- Available standard in gray and light tan
- Available on special order in custom colors

Chemical Stability

- Oxidation Resistance – Excellent
- Aliphatic Hydrocarbons – Excellent
- Aromatic Hydrocarbons – Excellent
- Petroleum, Crude – Excellent
- Natural Gas – Excellent
- Gasoline, Fuel Oil – Excellent
- Lubricating Oils – Excellent
- Animal, Vegetable Oils – Excellent
- Water Swell Resistance – Excellent
- Acid, Dilute – Good
- Sodium Hydroxides – Good
- Chlorinated Solvents – Fair to Good
- Oxygenated Solvents – Fair to Good

This is to certify that Durafoam C110FR, as manufactured by Monmouth Rubber & Plastics Corp., complies with FDA Regulation CFR 21, Part 177.2600 regarding Rubber Articles Intended For Repeated Use and Part 184 Direct Food Substances Affirmed As Generally Recognized As Safe (GRAS)

Please note that while Durafoam C110FR complies with the above FDA regulation, and possibly other FDA regulations, it is the end-product manufacturer's responsibility to insure that his/her product meets all the relevant requirements for the final product application. This may include certain extraction tests called out in the 177.2600 Regulation.

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.

MONMOUTH RUBBER & PLASTICS CORP.

75 LONG BRANCH AVE, LONG BRANCH, NJ 07740

PHONE: 888-FOAM-888 X13 FAX: 800-375-1962

E-mail sales@monmouthrubber.com Internet <http://www.rubberplastics.com>

ISO CERTIFIED





March 1, 2006

DURAFOAM™ C121A SERIES

TYPICAL PHYSICAL PROPERTIES

Stock No.	DURAFOAM™ C121A	DURAFOAM™ C221A
Color	Black	Black
Polymer	Neoprene/SBR	Neoprene/SBR
Density, pcf, approx.	4.5	5
SAE J18 July 92	2A1	2A2
ASTM-D-1056-67	SCE 41	SCE 42
ASTM D1056-68 & 78	RE 41	RE 42
ASTM D1056-85, 91, 98 & 00	2A1	2A2
Compression Deflection, 25% psi Compression, Varies with Thickness	2 to 5 psi	5 to 9 psi
Water Absorption by Weight (Max) ASTM Method D 1056	5% (10% allowed)	5% (10% allowed)
Flame Resistance, FMVSS302	Pass	Pass

“0” EMISSIONS – GUARANTEED TO BE 100% RECYCLABLE

AVAILABLE IN:

BUNS



SHEETS



ROLLS



TAPE



AUTOMOTIVE GASKETING SOLUTIONS



PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888 EXT. 13 FAX 800-375-1962

E-mail sales@monmouthrubber.com Internet <http://www.rubberplastics.com>



August 2009

DURAFOAM™ C210FR
NEOPRENE/EPDM/POLYMERIC BLEND

CERTIFIED TEST REPORT TO FDA REGULATION CFR 21, PART 177.2600

Color	Off White	Elongation	305%
ASTM-D-1056-99	2C2	Density, Approximate	6 pcf
SAE J18 (Rev. July 1992)	2C2	Shore 00 Durometer	40 approx.
Compression Set (ASTM-D-1056) Suffix B, 25% max.	20% PASS	Compression Deflection @ 25%	5.5 psi
Mil-R-6130, Type II, Grade A, B & C	PASS	Ozone Resistance, ASTM-D-1171 72 hrs @ 102°F, 50 pphm ozone	No Cracks -- PASS
Mil-C-3133, SCE 42 & SCE 7	PASS	UV Resistance, 120 hr QUV Ultra-violet light exposure	EXCELLENT
Oil Resistance, Fluid immersion 7 days @ 23°C or 74°F	PASS	Flame Retardant, UL94-HF1	Self-Extinguishing - PASS

High Performance Features

- High Heat Resistance
- Low Compression Set
- Dimensionally Stable (Very Low Shrinkage)
- Unique Soft, Supple, Real Rubber Feel
- Very Fine Cell Structure
- High Coefficient of Friction for anti-skid applications such as mouse pads
- Bonds well to most pressure sensitive adhesives including economy rubber based products
- Available standard in gray and light tan
- Available on special order in custom colors

Chemical Stability

- Oxidation Resistance – Excellent
- Aliphatic Hydrocarbons – Excellent
- Aromatic Hydrocarbons – Excellent
- Petroleum, Crude – Excellent
- Natural Gas – Excellent
- Gasoline, Fuel Oil – Excellent
- Lubricating Oils – Excellent
- Animal, Vegetable Oils – Excellent
- Water Swell Resistance – Excellent
- Acid, Dilute – Good
- Sodium Hydroxides – Good
- Chlorinated Solvents – Fair to Good
- Oxygenated Solvents – Fair to Good

This is to certify that Durafoam C210FR, as manufactured by Monmouth Rubber & Plastics Corp., complies with FDA Regulation CFR 21, Part 177.2600 regarding Rubber Articles Intended For Repeated Use and Part 184 Direct Food Substances Affirmed As Generally Recognized As Safe (GRAS)

Please note that while Durafoam C210FR complies with the above FDA regulation, and possibly other FDA regulations, it is the end-product manufacturer's responsibility to insure that his/her product meets all the relevant requirements for the final product application. This may include certain extraction tests called out in the 177.2600 Regulation.

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.

MONMOUTH RUBBER & PLASTICS CORP.

75 LONG BRANCH AVE, LONG BRANCH, NJ 07740

PHONE: 888-FOAM-888 X13 FAX: 800-375-1962

E-mail sales@monmouthrubber.com Internet <http://www.rubberplastics.com>

ISO CERTIFIED





RUBBER & PLASTICS CORP.

Updated January 2010

PHYSICAL PROPERTIES CHART

BONDAFLEX™ B29CS

Controlled particle size composites of
recycled cellular rubber & plastic foam

PROPERTIES	RESULTS
POLYMER – COMPOSITE FOAM CONTAINING A NEOPRENE/EPDM/SBR BLEND	YES
TEST TO THE LATEST REVISION OF ASTM-D-1056 SPECIFICATION, USING SQUARE SPECIMENS	YES
DENSITY: 328 Kg/m ³ (20 LBS/FT ³) MIN	25.15
OPEN-CELL AND CLOSE-CELL PARTICLES ARE PERMISSIBLE	14..25
STRESS @ 25% DEFLECTION: 10 TO 20 P.S.I.	
DEFLECTION PROPERTIES AFTER HEAT AGING: (168 HOURS @ 158°F +/- 30%)	+7%
WATER ABSORPTION WITHOUT VACUUM: MAX. 5%	2.8%

IMAGINE WHAT BONDAFLEX™ CAN DO FOR YOU!

FEATURES	BENEFITS
Sheet Size 36" x 54"	Allows for the use of Standard 54" Adhesive
Custom Sheet Sizes Available	Allows Maximum Yield of Customer Parts
Controlled Particle Size	More Consistent Physical Properties
Custom Color Coding	Where Required for Product Identification
Split on Heavy Duty Precision Splitters	Assures Thickness Tolerances are Held
Available In a Broad Range of Densities Including Ultra-High Density	The Most Cost Efficient Cellular Material Where High Mass (Density) is a Functional Requirement
No Additives to Interfere with Bonding	Allows for the Use of Low Cost PSA
Used for Over 20 Years in Industrial, Athletic, and Construction Applications	Stay with a winner - Proven Performance Over a 20+ Year Track Record
Made Primarily from in-House Raw Materials	Consistent Physical Properties and Guaranteed Availability of Supply
Low Compression Set	Assured Performance for Your Application
Excellent Dynamic Cushioning	Certified and Quantifiable Test Results for Dynamic Cushioning, Vibration, and Shock Absorption
Fully ROHS Compliant	Meets Global Requirements

This data and information is provided as a technical service and is subject to change without notice. Some of the above information may be provided from outside sources and MRPC relies on those sources to provide accurate information. Test results provided based on our own lab testing is believed to be accurate and is provided to the best of our ability based on our knowledge of the test methods and specifications listed. However, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore customer sample evaluation and approval of any material is suggested. MRPC will provide free of charge samples of its materials to assist customers in their evaluation to determine the safety, fitness and suitability of the product for the application and use by the user and by any third party which may use the product. MRPC cannot control the final use of the product and, therefore, does not guarantee the performance or the exact duplication of the results published in this document. For technical evaluation and support, please contact John M. Bonforte, Sr, Ext. 12 or email: johnsr@monmouthrubber.com

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888 EXT.12 FAX 800-375-1962

E-mail johnsr@monmouthrubber.com Internet <http://www.rubberplastics.com>



MANUFACTURER OF
**CLOSED CELL SPONGE RUBBER
& PLASTIC FOAM**



CERTIFIED TEST REPORT -- BONDAFLEX™ B33CS TO:

AASHTO M 153-70, Type 1
ASTM D-1752-04a (Reapproved 2008)
Fed. HH-F-341f Type II, Class A
Corps of Engrs. CRD C 509-70 Type 1
FAA P 501-2.5 & P 610-2.7

August 2015

PHYSICAL ASTM D-1752-04a	SPECIFICATION	REQUIREMENT	RESULT	PASS/FAIL
Recovery	Para 3.2, 50% deflection with 10 minute recovery	90% min.	93%	Pass
Compression	Para 3.3, 50% compression	50 psi to 1500 psi	500 psi	Pass
Extrusion	Para 3.4 50% compression	0.25 max.	0.09 in.	Pass
Density	Para 3.7	30 lb./ft ³ min.	33.12 lb./ft ³ min.	Pass
Accelerated Weathering	Para 3.8	No Disintegration	No Disintegration	Pass

PHYSICAL AASHTO-M-153-84	SPECIFICATION	REQUIREMENT	RESULT	PASS/FAIL
Recovery	Para 4.2, 50% deflection with 10 minute recovery	90% min.	93%	Pass
Compression	Para 4.3 50% compression	50 psi to 1500 psi	500 psi	Pass
Extrusion	Para 4.4, 50% compression	0.25 max.	0.09 in.	Pass
Density	Para 4.7	30 lb./ft ³ min.	33.12 lb./ft ³ min.	Pass
Accelerated Weathering	Para 4.8	No Disintegration	No Disintegration	Pass

This is to certify that Bondaflex™ B33CS was tested in our laboratory and meets fully the requirements of the specifications as detailed above.


John M. Bonforte, Sr., Technical Director


Date

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and "Ask John".



B33CS held in place mechanically

BONDAFLEX B33CS

1969/12/15

CROTON RESERVOIR PROJECT
BRONX, N.Y.



November 2010

PHYSICAL PROPERTIES CHART BONDAFLEX B33CS SPONGE

TYPICAL PHYSICAL PROPERTIES

POLYMER	NEOPRENE BLEND
COLOR	BLACK
DENSITY, Approx. (lbs/cu.ft)	30PCF MIN.
RECOVERY	90% MIN.
COMPRESSION	50PSI TO 1500PSI
WEATHERING	NO DISINTEGRATION
EXTRUSION	LESS THAN 0.25"
SPECIFICATION	HH-F-341-F-TY 2-CLASS A
SPECIFICATION	AASHO-M-153-70, TY 1
SPECIFICATION	ASTM-D-1752, TY 1
STOCK NUMBER	B33CS - BLACK

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**.

Have a technical question or problem?
Just email johnsr@monmouthrubber.com,
or call 1-732-229-3444 Ext 12
and **"Ask John"**.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888

FAX 800-375-1962

E-mail sales@monmouthrubber.com

Internet <http://www.rubberplastics.com>

REAL RUBBER HIGH PERFORMANCE SUPERBOUNCE

TYPICAL PHYSICAL PROPERTIES



May 2004

PHYSICAL	TEST METHOD	SUPERBOUNCE 57	SUPERBOUNCE 90
COLOR		BLACK	BLACK
POLYMER		NEO/SBR	NEO/SBR
DENSITY, Approx. (lbs/cu.ft)	ASTM-D-1056-00	14 pcf	45 pcf
DUROMETER, Shore 00	ASTM-D-2240	56 - 62	80 - 90
OIL IMMERSION , Ref Fuel B	ASTM-D-1056-00	----	20%
COMPRESSION DEFLECT. @ 25% Compression	ASTM-D-1056-00	9 - 14 psi	75 - 85 psi
COMPRESSION DEFLECT. @ 50% Compression	ASTM-D-1056-00	27 - 33 psi	----
ELONGATION	ASTM-D-2000	250%	862%
TENSILE STRENGTH	ASTM-D-2000	190 psi	1275 psi
TEAR DIE C	ASTM-D-3575 Suf.G	20 lb/in	240 lb/in
WATER ABSORPTION , By Weight (Max.)	ASTM-D-1056-00	< 2%	< 1%
HEAT AGING , (7 days @158°F) CD % Max. Change	ASTM-D-1056-00	30	30
COMPRESSION RECOVERY	ASTM-D-1056-00 Recovery Rates Based on ASTM Compression Set Test Methods	5 sec. 89% 60 sec. 90% 5 min. 94% 60 min. 94% 24 hrs. 95%	5 sec. 90% 60 sec. 93% 5 min. 95% 60 min. 95% 24 hrs. 96%
COMPRESSION SET	ASTM-D-1056-00	5 sec. 18% 60 sec. 13% 5 min. 12% 60 min. 8% 24 hrs. 5%	5 sec. 20% 60 sec. 14% 5 min. 14% 60 min. 10% 24 hrs. 8%
G MAX RATING ¹ VERTICAL ENERGY INPUT	ASTM-F-1292-99 6.6/FT SECOND 8.8/FT SECOND 10.5/FT SECOND	Test Report Available Upon Request	86 G's 163 G's 235 G's

¹ G MAX RATING MEASURES THE ABILITY OF A MATERIAL TO TRANSMIT ENERGY VERTICALLY (REBOUND) WHEN A CONTROLLED FORCE IS APPLIED. MRPC HAS DEVELOPED, IN CONJUNCTION WITH ASTM, A COMPUTERIZED ENERGY MEASURING FORMULA TO ACCURATELY MEASURE AND DESCRIBE THE ABILITY OF A DIE EJECTION MATERIAL TO TRANSMIT (RETURN) ENERGY. G MAX RESULTS MUST BE EVALUATED IN CONJUNCTION WITH OTHER PHYSICAL PROPERTIES SUCH AS TENSILE, COMPRESSION SET, AND COMPRESSION RECOVERY IN ORDER TO ACCURATELY PREDICT THE REPEATABILITY OF ENERGY TRANSFER OF A DIE EJECTION MATERIAL OVER MULTIPLE DIE IMPRESSIONS FOR AN EXTENDED PERIOD OF TIME.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY
75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888 EXT.13 FAX 800-375-1962

E-mail sales@monmouthrubber.com Internet http://www.rubberplastics.com

ONLY THE DURAFOAM™ DK SERIES IS U. L. RECOGNIZED FOR ALL 5 HARDNESSES



TO UL 50E, UL 157, UL 508, UL 94HF-1

ALL 5 HARDNESSES ARE ALSO LISTED TO CANADIAN LISTING CAN/CSA C22.2 NO. 017-92.

DK1111, DK2121, DK3131, DK4141, DK5151

DURAFOAM™	DK1111	DK2121	DK3131	DK4141	DK5151
COLOR	BLACK	BLACK	BLACK	BLACK	BLACK
DENSITY (PCF APPROX.)	6 +/- 2	6 +/- 2	9 +/- 2	10 +/- 2	13 +/- 4
POLYMER See Note B:	NEO/EPDM POLYMERIC BLEND	NEO/EPDM POLYMERIC BLEND	NEO/EPDM POLYMERIC BLEND	NEO/EPDM POLYMERIC BLEND	NEO/EPDM POLYMERIC BLEND
ASTM-D-1056-67 & 68, GRADE #	SCE 41	SCE 42	SCE 43	SCE 44	SCE 45
ASTM-D-1056-91 & 07 SAE J18-R7/92	2C1	2C2	2C3	2C4	2C5
COMPRESSION SET, SUFFIX B2 25% MAXIMUM	PASS	PASS	PASS	PASS	PASS
COMPRESSION DEFLECT. @ 25% DEFLECTION	2 - 5 PSI	5 - 9 PSI	9 - 13 PSI	13 - 17 PSI	17 - 25 PSI
WATER ABSORP. BY WEIGHT MAX, ASTM MTHD.	5% (10% ALLOWED)	5% (10% ALLOWED)	5% (10% ALLOWED)	5%	5%
TEMPERATURE RESISTANCE Low °F/High °F See Note A	-40/+250	-40/+250	-40/+250	-40/+250	-40/+250
ELONGATION % Min	150	150	150	150	150
HEAT AGING, 7 days @ 158°F) +/- 30% MAX CD CHANGE	PASS	PASS	PASS	PASS	PASS
TENSILE STRENGTH Min.	75 psi	100 psi	100 psi	125 psi	150 psi
OZONE 20% STRESS, 72 HRS @100 PPHM, ASTM-D- 1171-94; 1149-91; GM6086M; GM4486P; CHRYSLER MSAY 527	PASS	PASS	PASS	PASS	PASS
OIL RESISTANCE, FLUID IMMERSION E1, 7 Days @ 23°C or 74°F	PASS	PASS	PASS	PASS	PASS
FLAME RESISTANCE TO UL 94 HF1, FMVSS302	PASS U.L. #E208679	PASS U.L. #E208679	PASS UL #E208679	PASS UL #E208679	PASS UL #E208679
FLAME RESISTANCE TO CANADIAN CAN/CSA C22.2 # 017-92	PASS U.L. #E208679	PASS U.L. #E208679	PASS UL #E208679	PASS UL #E208679	PASS UL #E208679
U.L. 50E, U.L. 157, & U.L. 508	PASS U.L. #JMLU2 MH10200	PASS U.L. #JMLU2 MH10200	PASS U.L. #JMLU2 MH10200	PASS U.L. #JMLU2 MH10200	PASS U.L. #JMLU2 MH10200

NOTE A: For temperature resistance lower and/or higher than the above figures, please contact technical assistance. Under certain conditions, values greater than -40/+250 are possible.

NOTE B: Monmouth's materials are manufactured to ASTM-D-1056 and other related ASTM Standards. ASTM specifies physical performance, not polymers nor polymer content. Monmouth's lab is equipped to certify to all the ASTM specifications either customer specified or on our physical properties chart. If a particular polymer or polymer content is required, please contact John Sr. with your specific requirements.

DISCLAIMER: To the extent that the above product information is derived from sources other than Monmouth Rubber, Monmouth Rubber is substantially, if not wholly, relying upon the other source(s) to provide accurate information. Information provided as a result of Monmouth Rubber's own technical analysis and testing is accurate to the extent of our knowledge and ability, using effective standardized methods and procedures. Each user of these products, or information, should perform their own tests to determine the safety, fitness and suitability of the products, or combination of products, for any foreseeable purposes, applications and uses by the user and by any third party to which the user may convey the products. Since Monmouth Rubber cannot control the end use of this product, Monmouth Rubber does not guarantee that the user will obtain the same results as published in this document. The data and information is provided as a technical service, and the data and information is subject to change without notice. When considering the above product as a competitive equivalent material, please keep in mind that some materials have unique physicals that are not part of the recognized industry specifications and standards. Therefore, customer sample evaluation and approval of any substitution is suggested. Monmouth Rubber will supply free of charge evaluation & testing of its materials to assist customers in their evaluation. For technical evaluation and support, please contact John M. Bonforte, Sr., Ext. 12, or email: johnsr@monmouthrubber.com.



**ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033**

Have a Technical Question?

"Ask John" is Monmouth's global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth's customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and "Ask John".

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE: 888-FOAM-888 X13

FAX: 800-375-1962

Email sales@monmouthrubber.com Internet <http://www.rubberplastics.com>



April 2012

TECHNICAL REPORT

DURAFOAM™ 100% EPDM SERIES

ULTRAVIOLET EXPOSURE & OZONE

RESISTANCE TESTING

TEST PROCEDURE FOR ULTRAVIOLET EXPOSURE:

The Durafoam™ 100% EPDM Series, Expanded Cellular Rubber Sheets, were tested for QUV Ultraviolet Light Exposure. Test specimens for each stock number were cut 3 inches by 11 inches from ¼ inch thick sheets. These test pieces were exposed for 120 hours to a cycle consisting of:

1. Light at 70°C for 8 hours
2. Dark at 50° C for 4 hours
3. Condensation Cooling for 15 minutes

TEST RESULTS:

The following results were obtained. The surface appearance was examined after bending around a 2 inch diameter mandrel.

TEST PROCEDURE FOR OZONE:

The Durafoam™ 100% EPDM Series, Expanded Cellular Rubber Sheets, was tested for Ozone 20% Stress, 72 hrs @ 100 PPHM per ASTM-D-1171-94, ASTM-D-1149-91, GM6086M, GM4486P, GM15743, Chrysler MSAY430, Ty 1, 2, 3, 4, 5.

Sample Description	Color	Linear Shrinkage	Surface Appearance	Color Change from Control	Ozone Test Results – Zero Cracks
C191X LDS	Black	1.7% Max.	No Cracks	None	Pass
P191HD	Black	1.7% Max.	No Cracks	None	Pass
P192HD	Grey	1.7% Max.	No Cracks	None	Pass
P291HD	Black	1.7% Max.	No Cracks	None	Pass
P292HD	Grey	1.7% Max.	No Cracks	None	Pass
P391SHD	Black	1.7% Max.	No Cracks	None	Pass
P392SHD	Grey	1.7% Max.	No Cracks	None	Pass
P493SHD	Black	1.7% Max.	No Cracks	None	Pass
P497SHD	Grey	1.7% Max.	No Cracks	None	Pass
P497SHD Red	Red	1.7% Max.	No Cracks	None	Pass

CONCLUSION: Durafoam™ 100% EPDM Series For The Life of Your Products.

The above test results indicate that the full Durafoam™ 100% EPDM Series has excellent resistance to Ultraviolet Degradation and Ozone Attack. The above tests were performed under controlled laboratory conditions. In actual applications, the customer should determine the suitability of the Durafoam™ 100% EPDM Series for a specific intended use.



ISO CERTIFIED 9001:2008
CERTIFICATE #US08/5033

Have a Technical Question?

“Ask John” is Monmouth’s global technical support service. It is **FREE** and brings real value to your company. It allows Monmouth’s customers and visitors to have a 24/7 Technical Library & Test lab, absolutely **FREE**. Have a technical question or problem? Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and “Ask John”.

PHYSICAL AND SHOCK ATTENUATION TEST LABORATORY

75 LONG BRANCH AVENUE, LONG BRANCH, NJ 07740

PHONE 888-FOAM-888 EXT.12 FAX 800-375-1962

Int'l Phone 1-732-229-3444 Int'l Fax 1-732-229-0711

Email johnsr@monmouthrubber.com Internet <http://www.rubberplastics.com>

80% OF YOUR QUESTIONS ANSWERED HERE



QUICK INFO.LINK

Physical Properties Data Sheets
Downloads



Monmouth Rubber & Plastics Corp
75 Long Branch Avenue Long Branch, NJ 07740 U.S.A
Int'l Phone: (732) 229-3444
Toll Free: (888) 362-6888
Email: Sales@Monmouthrubber.Com
www.monmouthrubber.com

TECHNICAL DATA SHEET – DOWNLOADS	Safety Data Sheet	RoHs	COLOR
100% Closed Cell Neoprene – Durafoam C41NEO, C42NEO and C43NEO Series	SDS Download	RoHs Download	BLACK
100% Neoprene – Durafoam N231 and N207	SDS Download	RoHs Download	BLACK
100% Neoprene – Durafoam N231XS	SDS Download	RoHs Download	BLACK
100% Pure Nitrile Rubber – Durafoam NBR Series	SDS Download	RoHs Download	BLACK
Closed Cell Epichlorohydrin (ECH) – Durafoam C41ECH, C42ECH, C43ECH, C44ECH and C45ECH Series	SDS Download	RoHs Download	BLACK
EPDM 100% Low Density Thermoformable	SDS Download	RoHs Download	<ul style="list-style-type: none"> • P1921LDTF BLACK • P1924LDTF TAN
EPDM 100% Chrysler MS-AY-430 B3	SDS Download	RoHs Download	BLACK
EPDM Blend – Durafoam PMR150	SDS Download	RoHs Download	BLACK
EPDM Series – Durafoam C191XLDS	SDS Download	RoHs Download	BLACK
EPDM Series – Durafoam P191HD	SDS Download	RoHs Download	BLACK
EPDM Series – Durafoam P291HD and P292HD	SDS Download	RoHs Download	<ul style="list-style-type: none"> • 291 BLACK • 292 GREY
EPDM Series – Durafoam P391SHD	SDS Download	RoHs Download	BLACK
EPDM Series – Durafoam P392SHD	SDS Download	RoHs Download	GREY
EPDM Series – Durafoam P497SHD and P493SHD	SDS Download	RoHs Download	<ul style="list-style-type: none"> • 497 GRAY • 493 BLACK
NBR PVC Blend – Durafoam S88 Grey	SDS Download	RoHs Download	GREY
NBR PVC Blend – Durafoam S88 – Tan.pdf	SDS Download	RoHs Download	TAN
NBR PVC NEO Blend – Durafoam IVN41	SDS Download	RoHs Download	BLACK
Neoprene Blend – Durafoam C110FR Series	SDS Download	RoHs Download	OFF WHITE
Neoprene Blend – Durafoam C121A Series	SDS Download	RoHs Download	BLACK
Neoprene Blend – Durafoam C210FR Series	SDS Download	RoHs Download	OFF WHITE
Recycled Rubber – Bondaflex B29CS multi-color – Actual	SDS	RoHs	MULTI

Results	Download	Download	COLOR
Recycled Rubber – Bondaflex B33cs Test Report	SDS Download	RoHs Download	BLACK
Recycled Rubber – Bondaflex B33CS used at Croton Reservoir	SDS Download	RoHs Download	BLACK
Recycled Rubber – Bondaflex B33CS	SDS Download	RoHs Download	BLACK
Superbounce 57 and 90	SDS Download	RoHs Download	BLACK
UL Listed EPDM NEOPRENE Closed Cell Rubber Blend – Durafoam DK Series – DK111, DK2121, DK3131, DK4141 and DK5151	SDS Download	RoHs Download	BLACK
EPDM 100% series Ultraviolet & Ozone Test Reports	SDS Download	RoHs Download	<ul style="list-style-type: none"> • C191XLDS BLACK • P191HD BLACK • P192HD GREY • P291HD BLACK • P292HD GREY • P391SHD BLACK • P392SHD GREY • P493SHD BLACK • P497SHD GREY • P497SHD Red RED

ASK JOHN FREE TECH SUPPORT

Whether we make your product or not.



JOHN BONFORTE, SR.
TECH SUPPORT & GM
EXT. 12

Intl: +1 732-229-3444 Toll Free: (800) 375-1960

Sales@Monmouthrubber.Com

www.monmouthrubber.com

Monmouth Rubber & Plastics Corp, 75 Long Branch Avenue, Long Branch, NJ 07740 U.S.A