



September 2012

## TECHNICAL REPORT SHELF LIFE OF RUBBER

Shelf life is a simple question with a complex answer. Shelf life is a rather broad term that can mean different things to different companies and/or people. There are published tables that list the recommended shelf life for various polymers. These tables are only a guide for the following reasons:

The Shelf life of a particular polymer is highly dependent on the actual compound and the physical properties expected from that compound after X number of years. The environmental conditions under which the specific compound is stored affects shelf life. Some of these storage conditions are: temperature, humidity, source of light if any, oxygen and ozone exposure, deformation, contact with foreign materials during storage such as liquids, semi-solid materials, metal, and non-metal materials. Further it should be noted that shelf life relates only to the functional use of the compound over a period of time when properly stored. It does not relate to how the material may or may not perform in any specific application.

With the above in mind, it is important not to confuse Shelf Life with Service Life. Shelf Life relates to storage only. It is separate and distinct from Service Life. Storage conditions as detailed above will affect not only the Shelf Life but also the Service Life of a specific rubber formulation.

### Shelf Life of Durafoam™ Products:

The Shelf Life of both our cellular and solid rubber & plastic materials has been studied over the past 20+ years. The following is a guide as to the Shelf Life of Monmouth's products.

1. When properly stored, that is not exposed to the negative storage variables listed above; the Shelf Life of Monmouth's products is a minimum of at least one year.
2. The Durafoam™ DK series, specifically DK1111, DK2121, DK3131, DK4141, and DK5151 have been stored at room temperature, out of direct light, for 15+ years with no visible degradation.
3. Physical property testing for density, compression deflection and color change show no statistically significant change as it relates to these 15 year old retains.
4. Further information and clarification as it relates to Shelf Life requires a detailed requirement in writing as to all the test parameters required so that we can give a more specific answer to your shelf life concerns.



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](mailto: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 [johnsr@monmouthrubber.com](mailto:johnsr@monmouthrubber.com)

Internet [www.rubberplastics.com](http://www.rubberplastics.com)