Apple Rubber

310 Erie Street, Lancaster, New York 14086 Phone: 716-684-6560 www.applerubber.com

Shelf Life and Storage Condition Statement

As a standard practice, Apple Rubber's internal storage time limits align with the SAE AS5316 standard. This standard, developed by the Society of Aerospace Engineers, is the preferred aerospace standard in North American areas. By default, Apple Rubber prints the shelf life associated with the AS5316 standard on package labels.

While we customarily reference the SAE AS5316 standard, custom shelf life requirements can be used and listed. For example, storage timeline per ISO 2230 or custom percentage requirements can be referenced. An example of a custom percentage could be requiring at least 80% of the AS5316 shelf life to be remaining at receipt. This could be updated and specified per customer requirement. Additional charges for restrictive shelf life requirements will be applied.

At Apple Rubber we acknowledge that both SAE AS5316 and ISO 2230 focus on maintaining the longevity and quality of rubber products and offer guideline specifics to storage timelines and packaging for proper storage conditions. Therefore, we can report shelf life per either standard or custom percentage requirements, given the request.

The tables below provide both SAE AS5316 and ISO 2230 shelf life and storage conditions. These tables include all elastomeric materials used at Apple Rubber.

Table 1. Storage Timeline Recommendations per SAE AS5316 and ISO 2230

		SAE AS5316	ISO 2230	
		Shelf Life	Initial Storage Periods	Extension Storage Periods
Group A Rubbers per ISO 2230	Polybutadiene (BR)	5 Years	5 Years	2 Years
	Natural Rubber (NR)			
	Polyisoprene (IR)			
	Styrene Butadiene (SBR)	3 Years		
	Polyurethane (AU/EU)	5 Years		
Group B Rubbers per ISO 2230	Nitrile (NBR)	15 Years	7 Years	3 Years
	Nitrile/PVC (NBR/PVC)			
	Carboxylated Rubber (XNBR)			
	Hydrogenated Nitrile (HNBR)			
	Epichlorohydrin (CO, ECO)			
	Acrylic (ACM, AEM)			
	Neoprene (CR)			
	Butyl (IIR)	Unlimited		
	Bromobutyl (BIIR)			
	Chlorobutyl (CIIR)			
Group C Rubbers per ISO 2230	Chlorinated Polyethylene (CM)	15 Years	10 Years	5 Years
	Chlorosulfonated polyethylene (CSM)			
	EPM, EPR (EPM)	Unlimited		
	EPDM (EPDM)			
	Fluorocarbon (FKM, FFKM)			
	Silicone (Q, VMQ, PVMQ, FVMQ)			
Additional Rubbers per SAE	Tetrafluoroethylene/propylene (FEPM, TFE/P)	Unlimited	Not Specified	Not Specified
	Polytetrafluorethylene (PTFE)			

Apple Rubber

310 Erie Street, Lancaster, New York 14086 Phone: 716-684-6560 www.applerubber.com

Table 2. Storage Temperature and Humidity Recommendations per SAE AS5316 and ISO 2230	Storage Temperature	Storage Humidity
SAE AS5316	15°C – 38°C	Less than 75%
ISO 2230	Below 25°C	Less than 70%

For more information regarding the tables and a comparison of the standards, please visit *Comparing Elastomer Storage Standards: SAE AS5316 and ISO 2230*.

When reporting shelf life, we utilize a calendar quarter for the cure date — meaning the last date of the quarter is considered the manufacturing date. Additionally, while individual packaging is listed within the AS5316 standard, Apple Rubber has found that bulk packaging provides the same level of storage integrity. This is supported by SAE committee data, which showed no performance difference between bulk and unit packaging. Consequently, we do not consider unit packaging essential for meeting standard shelf lives, though it remains available upon request. Bulk packaging is far more cost efficient, environmentally friendly, and is the most common packaging volume.

For any further questions or additional information, please contact info@applerubber.com.

Aurora Franklin

Aurora Franklin / Validation Engineer

24March2026