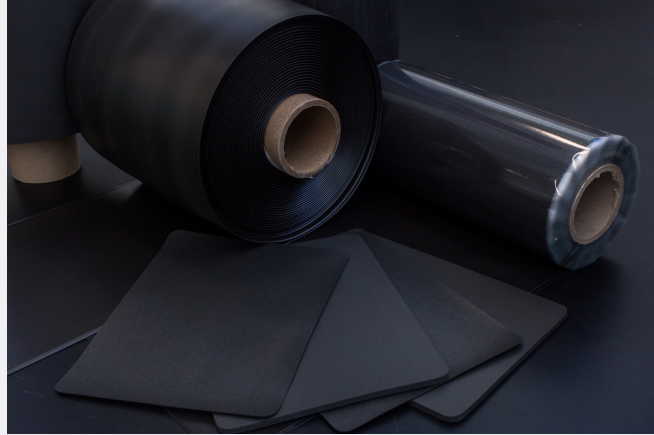


A Guide to Choosing a PORON® Polyurethane Material

There are many options in the broad line of PORON® polyurethane materials. This can make it tricky when attempting to select the one that best suits your application and design needs. This document will assist in that effort by explaining the basics of standard PORON formulations.



Across the Board

While there are many different formulations, all PORON® materials share some key characteristics:

- Microcellular open-cell structure
- Top tier compression set and stress relaxation resistance, tight manufacturing tolerances
- Low-outgassing and non-fogging
- The material will not become brittle and crumble and is non-corrosive to metal
- The material is inherently flame retardant without the use of additives. Many of the materials meet flammability requirements of UL94 HBF and FMVSS 302
- Engineered polyurethane formulations offer a wide modulus range - 2-90 psi (13.7-620kPa) @ 25% deflection - for more design versatility
- Good chemical resistance
- Thicknesses from 0.012" to 0.500" (0.43 mm to 12.7 mm)

These characteristics make PORON polyurethane an excellent long term solution for many applications.

Key Differences

The broad range of PORON® materials covers application needs ranging from very soft to very firm solutions, and specialized performance offerings such as enhanced water sealing and impact protection. It is important that designers consider which PORON formulation best matches their design requirements.

PORON polyurethane legacy products, 4701-30, 40, 50, and 60, are great for general purpose gaskets or as gap- fillers.

PORON 4790-92 is an enhanced compressible material, adding an extra soft, slow recovery grade to the suite of legacy products.

PORON® AquaPro™ formulations 4701-37 and 41 are specially designed enhanced water sealing grades. They offer the same great performance as the legacy products, but with an improved ability to create water- tight seals.

The 4790-79 material, PORON® Shock Seal® delivers specialized impact protection.

Formulation	Description	Dust Ingress	Water Ingress	High Conformability Gap Filling	Vibration Management
4790-92	PORON Extra Soft, Slow Recovery	++	--	+++	++
4701-30	PORON Very Soft	++	-	++	++
4701-37	PORON AquaPro Very Soft	++	++	++	+
4701-40	PORON Soft	++	+	++	++
4701-41	PORON AquaPro Soft	++	++	+	++
4701-50	PORON Firm	++	+	+	+
4701-60	PORON Very Firm	++	+	-	-
4790-79	PORON Shock Seal	++	--	+	impact

+++ Optimum Fit + Adequate Fit -- Not Recommended
 ++ Great Fit - Less than Ideal Fit

Rogers Corporation offers many other specialty PORON products that can be found on our website. Contact your Rogers' Sales Engineer or the Rogers Solution Center (solutions@rogerscorp.com) with questions or for assistance in selecting the right material for your needs.