



SDR Polyethylene Foam

SDR is a micro-cellular polyethylene foam designed to Support, Deflect and Rebound. SDR enhances the predictability of safety critical applications, such as side curtain airbags, providing a reaction surface engineered for rapid deployment. SDR's unique cellular structure provides responsive loading and reliable performance. SDR material properties lends itself to nearly limitless potential in any vehicle.

The product was designed by Sealed Air, engineered exclusively for Coastal Automotive.

SDR polyethylene foam is a strong, resilient, closed-cell foam with a medium density of 1.8 pcf (28.8 kg/m³). SDR offers excellent strength, resistance to creep under load, vibration and shock absorbency, and water resistance characteristics. These properties are critical for meeting Federal Motor Vehicle Safety Standard 226 (FMVSS 226). SDR Assists as a ramp/reaction surface for side curtain airbags.

General Applications

SDR is perfect as packaging material for dunnage and cushioning components in packaging applications that require loadings up to 2.0 psi (13.8 kPa).

SDR has outstanding dimensional stability and recovery characteristics that provide optimal cushioning protection against repeated impacts. It is ideal for cushion packaging and is used in many applications, including: computer, automotive, construction and recreation.

Product Features

SDR polyethylene foam is a durable, lightweight, flexible, extruded product. As the properties listed on the reverse suggest, SDR is ideally suited for applications requiring shock absorption, vibration dampening, insulation and buoyancy.

SDR meets the requirements of the U.S. Clean Air Act Amendments. It is easily fabricated, impervious to most chemicals, non-abrasive and performs consistently over a wide range of temperatures.

SDR is also reusable and completely recyclable because it is made of non-crosslinked polyethylene. Made in the USA.

Flammability

SDR polyethylene foam has successfully passed FMVSS 302 flammability testing, conducted according to the U.S. Code of Federal Regulations, CFR 49.

Engineered for Everything

Utilizing a team of advanced engineers, engaged support staff and years of experience, foam blocks are cut and designed specific for your application.

The manufacturing process has been perfected so that there is no tooling requirements, saving time and money for the customer.

Physical Properties of SDR Polyethylene Foam

Physical Properties	Test Method	Value
Density	ASTM D3575, Suffix W Method B; ISO 845	pcf (kg/m³) 1.8 (28.8)
Compressive Set	Vertical ASTM D3575, Suffix B (50% compr.);	< 20%
	EN/ISO 1856 (23 °C, 25% compr.)	< 10%
Compressive Creep (1000 hrs @ 73 °F [23 °C])	Vertical ASTM D3575, Suffix BB	< 10% @ 2.0 psi (13.8 kPa)
Average Compressive Deflection @ 10% @ 25% @ 50%	ASTM D3575, Suffix D	psi (kPa) 5 (30) 7 (48) 15 (103)
Thermal Stability	ASTM D3575, Suffix S; ISO 2796	< 1.5% < 2%
Thermal Conductivity @ 75 °F (24 °C) @ 23 °F (-5 °C)	Vertical ASTM D3575, Suffix V; EN 28301; ISO 2581	BTU•in/hr•ft²•°F (W/m²K) 0.49 (0.07) 0.42 (0.06)
Water Absorption	ASTM D3575, Suffix L; ISO 2896; ASTM C272	lb/ft² (kg/m²) 0.3 (1.5) < 3% by volume
Buoyancy	ASTM D3575, Suffix AA	pcf (kg/m³) 58 (930)
Average Tensile Strength @ peak	ASTM D3575, Suffix T; ISO 1798	psi (kPa) 31 (215)
Average Tensile Elongation	ASTM D3575, Suffix T; ISO 1798	50%
Average Tear Strength	ASTM D3575, Suffix G	lb/in (N/mm) 10 (1.75)

The data presented for this product are for unfabricated SDR polyethylene foam products. While values shown are typical of the product, they should not be construed as specification limits.