

**Material Specification
Sheet**e: sales@rhnutall.co.uk
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f: 0121 359 4439**RHN 39A**www.rhnutall.co.uk**ABS****General Information**

ABS is a polymerised alloy of the three materials acrylonitrile, butadiene and styrene. ABS is a strong and tough plastic that is used by RH Nuttall Limited in forms of washers, gaskets, seals, and strip where high impact resistance is needed. It also has an aesthetically pleasing smooth gloss finish that is almost scratch resistant, which is important in parts that are visible.

Applications

We supply many different industry sectors with ABS parts including the hoover, cosmetic, automotive and architectural hardware trades. As ABS has a higher resistance to chemical attack from weak acids and most alkalis than HIPS, as well as having a higher operating temperature too, it makes it an ideal choice of material for a variety of robust applications.

Physical/Mechanical

Property	Test Method	Units	Result
Specific Gravity	-	g/cm ³	1.04
Water Absorption	DIN EN ISO 62	%	0.07/0.2
Modulus of elasticity (tensile test)	DIN EN ISO 527-2	MPa	1700
Tensile strength	DIN EN ISO 527-2	MPa	32
Tensile Strength at yield	DIN EN ISO 527-2	MPa	32
Elongation at yield	DIN EN ISO 527-2	%	3
Elongation at break	DIN EN ISO 527-2	%	49
Flexural strength	DIN EN ISO 178	MPa	49
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	1600
Compression strength	EN ISO 604	MPa	15/26
Compression modulus	DIN EN ISO 527-2	MPa	1400
Impact strength (Charpy)	DIN EN ISO 179 1eU	kJ/m ²	n.b.
Notched impact strength (Charpy)	DIN EN ISO 179-1eA	kJ/m ²	34
Ball indentation hardness	ISO 2039-1	MPa	74

Electrical/Thermal

Property	Test Method	Unit	Result
Specific surface resistance	DIN IEC 60093	Ω	10 ¹⁴
Specific volume resistance	DIN IEC 60093	Ω*cm	10 ¹⁴
Glass transition	DIN 53765	°C	104
Service temperature	DSC	°C	100
Service temperature	DSC	°C	75

The information given above is based upon average values and is no way intended as a warranty. The purchaser is deemed responsible for determining the suitability of the product for any application. All data relating to suitable uses and description information concerning our products are compiled from research and are believed to be reliable but are provided for guidance purposes only. The Company holds no legal or contractual responsibility for information supplied

