-100

Low-Fire-Hazard Material

Product Facts

- **Heat-shrinkable, semiflexible molded shapes for low fire hazard applications**
- **Low-smoke index as defined by BS G 198 Part 5**
- **Low-toxicity index as defined by NES 713**
- **High-temperature index as defined by ISO 4589-3**



Applications

TE heat-shrinkable molded parts in -100 material form part of System 100. The molded parts are designed for use in conjunction with Zerohal cable and tubing for applications where hazard reduction in the event of fire is crucial. The material exhibits excellent fire safety characteristics combined with low-smoke and low-acid-gas emission while retaining good mechanical and fluid-resistant properties. -100 parts with adhesive lining provide location, sealing, and strain relief of cable-connector terminations and cable–cable transitions on harnesses used where there is a need to lower the risk (such as in marine applications, mass transit systems, and offshore installations), or where equipment would be irreparably damaged by the corrosive products of combustion. Available in a wide range of configurations, -100 parts will operate continuously from -30°C to 105°C [-22°F to 221°F]. The standard color is black.

Installation

-100 molded parts will shrink on the application of heat above 120°C [248°F].

Recommended installation temperature: 150°C [302°F]

Operating Temperature Range

-30°C to 105°C
[-22°F to 221°F]

Available in:	Americas	Europe	Asia Pacific
	■	■	■

Catalog 1654025
Revised 5-12

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Dimensions are shown for reference purposes only. Specifications subject to change.

Dimensions are in millimeters unless otherwise specified.

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Canada: +1 (905) 475-6222
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Latin/S. Am.: +54 (0) 11-4733-2200
Germany: +49 (0) 6251-133-1999

UK: +44 (0) 800-267666
France: +33 (0) 1-3420-8686
Netherlands: +31 (0) 73-6246-999
China: +86 (0) 400-820-6015

-100 (Continued)

Specifications/Approvals

Military/NAVSEA	TE
5617649 (U.S.)	RW-2082
Def. Stan 59-97, Issue 3, Type DF (Europe)	—
BSG 198 Part 5 Type DF (Europe)	—
BR1326 listed Class C	—
VG95343 Part 29 & 30	
SAE-AS85049/ 140, 141, 142 (material designator G)	

Product Characteristics

		Specification Requirements	Test Method
Physical	Tensile strength	8 MPa (min.)	ISO 37
	Ultimate elongation	200% (min.)	ISO 37
	2% secant modulus	130 MPa (max.)	ASTM D 882
	Specific gravity	1.5 (max.)	ISO 1183
Thermal	Heat aging for 168 h at 150°C [302°F]	Ultimate elongation 100% (min.)	ISO 188, ISO 37
	Heat shock for 4 h at 225°C [437°F]	No dripping, cracking, or flowing	ASTM D 2671
	Low-temperature flex at -30°C [-22°F]	No cracking during mandrel bend	ASTM D 2671
Fire safety properties	Limiting oxygen index	29 min.	ISO 4589-2
	Temperature index	250°C [482°F] (min.)	ISO 4589-3
	Flammability (burn time)	100 s (max.)	ASTM D 635
	Smoke index	20 (max.)	BSG 198 Part 5
	Toxicity index	5 (max.) per 100 g	NES 713
Electrical	Electric strength	15 MV/m (min.)	IEC 243
Water absorption	—	0.75% (max.) at 23°C [73°F] 3.5% (max.) at 70°C [158°F]	ISO 62
Fluid resistance	ISO 1817 Gasoline fuel	Tensile strength 5 MPa (min.) Ultimate elongation 150% (min.)	ISO 1817 and ISO 37 after immersion for 24 h at 23°C [73°F]
	Lubricating oil O-149	Tensile strength 5 MPa (min.) Ultimate elongation 150% (min.)	ISO 1817 and ISO 37 after immersion for 24 h at 50°C [122°F]
	Hydraulic fluid H515	Tensile strength 5 MPa (min.) Ultimate elongation 150% (min.)	ISO 1817 and ISO 37 after immersion for 24 h at 23°C [73°F]

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