

SARLINK® 4339D is a highly engineered thermoplastic elastomer for use in demanding applications. SARLINK® 4339D is a flame retardant, high hardness grade processing exceptional chemical resistance, compression set and high temperature performance. This product can be processed by injection molding or extrusion. Applications include wire and cable insulation, electrical connectors, seals gaskets and boots. This product is designed as an alternate to thermoset elastomers like EPDM and chlorosulfonated polyethylene.

| Typical properties*  | Test method                                | S.I.                               |                              | English                           |                                      |
|--|--|------------------------------------|------------------------------|-----------------------------------|--------------------------------------|
|  |  | Typical value                      | Units                        | Typical value                     | Units                                |
| Hardness Shore D (5 sec)   | ASTM D-2240                                | 40                                 | --                           | 40                                | --                                   |
| Specific Gravity   | ASTM D-792                                 | 1.26                               | --                           | 1.26                              | --                                   |
| Modulus @ 100% Elongation  | ASTM D-412                                 | 7.4                                | MPa                          | 1070                              | Psi                                  |
| Tear Strength  | ASTM D-624                                 | 53.7                               | kN/m                         | 305                               | Pli                                  |
| Ultimate Elongation  | ASTM D-412                                 | 510                                | %                            | 510                               | %                                    |
| Oil Resistance – Volume Change<br>(IRM 903 Oil – 24 hrs @ 125°C)   | ASTM D-471                                 | +50                                | %                            | +50                               | %                                    |
| Tensile Strength   | ASTM D-412                                 | 13.6                               | MPa                          | 1980                              | Psi                                  |
| Brittle Point  | D-2137                                     | -43                                | °C                           | -.45                              | °F                                   |
| Compression Set  | D-395                                      | 57                                 | %                            | 57                                | %                                    |
| Electrical Properties<br>UL Flammability (UL94 V-0)<br>Oxygen Index<br>Dielectric Constant (1MHz)<br>Dissipation Factor (1MHz)<br>Dielectric Strength<br>(1" electrode in air) | UL 94<br>D-2863<br>D-150<br>D-150<br>D-149 | 1.2<br>30<br>2.3<br>0.003<br>25.20 | mm<br>%<br>--<br>--<br>Kv/mm | .047<br>30<br>2.3<br>0.003<br>640 | inches<br>%<br>--<br>--<br>volts/mil |

\* Tests are conducted on injection molded plaques.  
Test temperature 25°C (77°F) except where indicated otherwise.

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SARLINK® 4339D is a polypropylene based elastomer, which can be processed on conventional thermoplastic equipment for injection molding, extrusion and blow molding. This product has a wide processing window in most applications. Melt temperatures from 360°F to 420°F can be used. Do not exceed 430°F. Drying is recommended for extrusion and blow molding and any time the material is used from an unsealed package. Dry three (3) hours at 180°F. Drying is best accomplished in a desiccant dryer.

| INJECTION MOULDING CONDITIONS |                                   |  | EXTRUSION CONDITIONS |  |   |
|-------------------------------|-----------------------------------|--|----------------------|--|---|
| Melt temperature              |                                   | 360-420°F  | Melt temperature     |  | 380-410°F   |
| Barrel Temperatures           | Rear<br>Middle<br>Front<br>Nozzle | 350-400°F<br>350-400°F<br>350-410°F<br>390-420°F | Barrel Temperatures  | Rear<br>Transition<br>Metering<br>Front<br>Die | 360-400°F<br>360-400°F<br>370-400°F<br>370-400°F<br>380-410°F |
| Mould temperature             |                                   | 50-150°F   |                      |  |   |
| Screw Speed                   |                                   | 100-200 RPM                                      | Roll Temperature     |  | 70-120°F  |
| Back Pressure                 |                                   | 10-150 psi                                       | Screen Pack          |  | 20 to 60 mesh   |
| Screw                         | General Purpose 20:1 L/D ratio    |  | Screw                | General Purpose 3:1 compression ratio          |   |

#### PURGING

SARLINK® 4339D has good melt stability. Empty the barrel for idle periods of thirty (30) minutes or longer. Purge thoroughly before and after use of this product with polyethylene or polypropylene.

#### RECYCLING/REGRIND

This product can be reprocessed. Physical properties are generally not degraded. Dry regrind prior to reprocessing. Drying is best accomplished in a desiccant dryer.

#### COLORING

The use of polyolefin based color concentrates is recommended. Apply back pressure in injection molding to disperse color.

#### BONDING/ASSEMBLY

Thermal bonding techniques can be used to form high strength bonds. Adhesive bonding can be achieved with specialized adhesives. Bond strength is limited due to the polypropylene base of this material.

#### STORAGE & HANDLING

SARLINK® 4339D is available in 55 lb. foil lined bags (up to 2,200 lbs. per pallet) or 1,100 lb. polyethylene lined gaylords. It has a storage life at normal temperatures of several years. Please refer to the Material Safety Data Sheet for this grade prior to first time handling.

