

SARLINK® X3939D-01 is a high hardness thermoplastic elastomer featuring an optimal balance between high temperature stiffness and low temperature impact resistance especially designed for airbags. SARLINK® X3939D-01 can be processed by injection molding, extrusion and blow molding.

| Typical properties *   | Test method | Typical value             | Units S.I.             |
|--|-------------|---------------------------|------------------------|
| <b>Specific gravity</b>  | ISO 1183    | 0.91                      | g/cm <sup>3</sup>      |
| <b>Hardness shore A (5 sec)</b>  | ISO 868     | 39D                       |                        |
| <b>Stress/strain properties</b><br><u>Cross direction</u><br>Modulus 100%<br>Modulus 300%<br>Tensile strength<br>Elongation at break | ISO 37 (II) | 7.5<br>8.1<br>12.5<br>725 | MPa<br>MPa<br>MPa<br>% |
| <b>Compression set</b><br>22h/70°C   | ISO 815     | 65                        | %                      |
| <b>Impact resistance</b><br>Notched Izod   | ISO R180    | Ductile at -45°C          |                        |

\* Tests are conducted on injection-molded plaques unless indicated otherwise.

SARLINK® X3939D-01 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 180°C to 215°C can be used. Do not exceed 230°C. Drying is recommended for extrusion and blow molding. Any time the material is used from an unsealed package, dry 3 hours at 80°C. Drying is best accomplished in a desiccant dryer.

| INJECTION MOULDING CONDITIONS |                                   |  | EXTRUSION CONDITIONS |  |   |
|-------------------------------|-----------------------------------|--|----------------------|--|---|
| Melt temperature              |                                   | 185-250°C  | Melt temperature     |  | 195-215°C   |
| Barrel Temperatures           | Rear<br>Middle<br>Front<br>Nozzle | 180-215°C<br>190-220°C<br>210-230°C<br>230-250°C | Barrel temperatures  | Rear<br>Transition<br>Metering<br>Front<br>Die | 180-200°C<br>180-205°C<br>187-210°C<br>187-210°C<br>195-215°C |
| Mould temperature             |                                   | 10-55°C  |                      |  |   |
| Screw Speed                   |                                   | 100-200 RPM                                      | Roll Temperature     |  | 20-50°C   |
| Back Pressure                 |                                   | 0.1-1 MPa  | Screen Pack          |  | 20 to 60 mesh   |
| Screw                         | General Purpose                   |  | Screw                | General Purpose 3:1 compression ratio          |   |

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#### PURGING

SARLINK® X3939D-01 has excellent melt stability. Empty the barrel for idle periods of 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.

#### COLOURING

The use of polyolefin based color concentrates is recommended. Apply backpressure 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. Adhesive bond strength is limited due to the polypropylene base of this material.

#### STORAGE & HANDLING

SARLINK® X3939D-01 is available in 20 kg polyethylene bags (1000 kg per pallet). 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.