ENGI-NEERING LIFE



Elastron

V100.D40.B

TECHNICAL DATASHEET

PRODUCT DESCRIPTION

A hard , black thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer (TPE) family designed for injection applications.

| GENERAL PROPERTIES | | |
|---------------------|-----------|--|
| Color | Black | |
| Certifications | RoHS | |
| Processing Method | Injection | |
| Available Standards | ASTM | |

Automotive Specifications

TOYOTA/ TSM5601G-4C

| Physical Properties | | | | | |
|---------------------------|------------------|------------------------------|----------------------|--|--|
| Property | Unit | Standard | Value | | |
| Density | g/cm³ | ASTM D 792 | 0.90 | | |
| Durometer Hardness, 3 sec | Shore D | ASTM D 2240 | 40.00 | | |
| Tensile Strength at Break | MPa | ASTM D412, Method A | 15.00 | | |
| Mod.of Elasticity %100 | MPa | ASTM D412, Method A | 7.90 | | |
| Mod.of Elasticity %300 | MPa | ASTM D412, Method A | 9.70 | | |
| Elongation at break | % | ASTM D412, Method A | 450.00 | | |
| Compression Set | % at 23°C, 22 h | ASTM D 395, Type 2, Method B | 40.00 | | |
| Compression Set | % at 70°C, 22 h | ASTM D 395, Type 2, Method B | 63.00 | | |
| Compression Set | % at 100°C, 22 h | ASTM D 395, Type 2, Method B | 77.00 | | |
| Tear Resistance | N/mm | ASTM D624 | 95.00 | | |
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| Ageing Tests | | | | | |
|-----------------------|----------|--------------|-----------------------------|--|--|
| Property | Unit | Standard | Value | | |
| Ozone Resistance | Stressed | ASTM D 1149 | No cracks | | |
| | Bond | able to | | | |
| | PE-F | PP-EVA | | | |
| Drying time | hours | | 2 | | |
| Rear Zone temp. | °C | 155- 175 | | | |
| Middle Zone temp. | °C | 165- | 185 | | |
| Front Zone temp. | °C | 170- | 190 | | |
| Nozzle Temperature | °C | 180- | 210 | | |
| Injection Speed | - | Moderate | | | |
| Injection Time | sec. | 2-4 | | | |
| Injection Pressure | bar | 10- 40 | | | |
| Hold Pressure | bar | 5-20 | | | |
| Back Pressure | bar | 5- 40 | | | |
| Screw Speed | rpm | 50- 200 | | | |
| Mold Temperature | °C | 25- 50 | | | |
| Screw Comp. ratio | - | 1.5:1- 2.0:1 | | | |
| Screw L/D ratio | - | 18- 24 | | | |
| Residence time | - | 1-2 shot | | | |
| Cushion size | mm | 8 | | | |
| Suggested Max Regrind | % | 20 | | | |
| Drying time | hours | - | | | |
| Screw Comp. Ratio | - | - | | | |
| Screw L/D | - | - | | | |
| Feed Zone temp. | ۵° | - | | | |
| Rear Zone temp. | °C | - | | | |
| Center Zone temp. | ۵° | - | | | |
| Front Zone temp. | °C | - | | | |
| Head temp. | ۵° | | | | |
| Die temp. | °C | | | | |
| Suggested Max Regrind | % | | | | |
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| Additional Information Elastron products are not compatible with PVC and Acetal. Regrinding level up to %20 is recommended with minimum property loss. | | | | | | |
|--|---|-----------|------|--|--|--|
| | | | | | | |
| Flow | % | ASTM D955 | 1.75 | | | |
| Across Flow | % | ASTM D955 | 1.58 | | | |

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ISO 9001: 2015 & IATF16949: 2016 & ISO 14001: 2015 REGISTERED QUALITY SYSTEMS



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