

# Elastron

V251.D51.B

## TECHNICAL DATASHEET

### PRODUCT DESCRIPTION

A hard , black thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer (TPE) family which offers higher temperature resistance and very good compression set with very good UV resistance. This product is specially designed for weatherseal applications.

### GENERAL PROPERTIES

|                            |                                          |
|----------------------------|------------------------------------------|
| <b>Color</b>               | Black                                    |
| <b>Certifications</b>      | RoHS                                     |
| <b>Processing Method</b>   | Injection                      Extrusion |
| <b>Available Standards</b> | ASTM                                     |

### Automotive Specifications

GM/ GMW 15812P (TYPE 10E)                      FCA/ MS-AR-100 HGV

### Physical Properties

| Property                  | Unit              | Standard                     | Value  |
|---------------------------|-------------------|------------------------------|--------|
| Density                   | g/cm <sup>3</sup> | ASTM D 792                   | 0.95   |
| Durometer Hardness, 3 sec | Shore D           | ASTM D 2240                  | 51.00  |
| Tensile Strength at Break | MPa               | ASTM D412, Method A          | 26.00  |
| Mod.of Elasticity %100    | MPa               | ASTM D412, Method A          | 11.00  |
| Mod.of Elasticity %300    | MPa               | ASTM D412, Method A          | 14.50  |
| Elongation at break       | %                 | ASTM D412, Method A          | 750.00 |
| Compression Set           | % at 23°C, 22 h   | ASTM D 395, Type 2, Method B | 48.00  |
| Compression Set           | % at 70°C, 22 h   | ASTM D 395, Type 2, Method B | 59.00  |
| Compression Set           | % at 100°C, 22 h  | ASTM D 395, Type 2, Method B | 70.00  |
| Tear Resistance           | N/mm              | ASTM D624                    | 120.00 |

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| Ageing Tests          |          |             |              |
|-----------------------|----------|-------------|--------------|
| Property              | Unit     | Standard    | Value        |
| Ozone Resistance      | Stressed | ASTM D 1149 | No cracks    |
| Bondable to           |          |             |              |
| PE-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       | -        |             | High         |
| Injection Time        | sec.     |             | 1- 3         |
| 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     | -        |             | 2.0:1- 4.0:1 |
| Screw L/D ratio       | -        |             | 18- 24       |
| Residence time        | -        |             | 1-2 shot     |
| Cushion size          | mm       |             | 8            |
| Suggested Max Regrind | %        |             | 20           |
| Drying time           | hours    |             | 2            |
| Screw Comp. Ratio     | -        |             | 2.0:1- 4.0:1 |
| Screw L/D             | -        |             | 18- 30       |
| Feed Zone temp.       | °C       |             | 155- 165     |
| Rear Zone temp.       | °C       |             | 160- 180     |
| Center Zone temp.     | °C       |             | 165- 185     |
| Front Zone temp.      | °C       |             | 170- 190     |
| Head temp.            | °C       |             | 180- 210     |
| Die temp.             | °C       |             | 185- 215     |
| Suggested Max Regrind | %        |             | 20           |

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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.

| Shrinkage   | Unit | Standard  | Value |
|-------------|------|-----------|-------|
| Flow        | %    | ASTM D955 | 1.92  |
| Across Flow | %    | ASTM D955 | 1.58  |

### Notes

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

