



# **Elastron**

V100.D55.N

# **TECHNICAL DATASHEET**

## PRODUCT DESCRIPTION

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

## GENERAL PROPERTIES

Color Natural
Certifications RoHS
Processing Method Injection
Available Standards ASTM

| Physical Properties       |                |                     |        |  |  |
|---------------------------|----------------|---------------------|--------|--|--|
| Property                  | Unit           | Standard            | Value  |  |  |
| Density                   | g/cm³          | ASTM D 792          | 0.91   |  |  |
| Durometer Hardness, 3 sec | Shore D        | ASTM D 2240         | 55.00  |  |  |
| Tensile Strength at Break | MPa            | ASTM D412, Method A | 20.00  |  |  |
| Mod.of Elasticity %100    | MPa            | ASTM D412, Method A | 8.60   |  |  |
| Mod.of Elasticity %300    | MPa            | ASTM D412, Method A | 14.20  |  |  |
| Elongation at break       | %              | ASTM D412, Method A | 600.00 |  |  |
| Flammability Rating       | HB, V0, V1, V2 | UL 94               | НВ     |  |  |
| Tear Resistance           | N/mm           | ASTM D624           | 105.00 |  |  |

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| Ageing Tests     |          |             |           |  |  |
|------------------|----------|-------------|-----------|--|--|
| Property         | Unit     | Standard    | Value     |  |  |
| Ozone Resistance | Stressed | ASTM D 1149 | No cracks |  |  |
| Bondable to      |          |             |           |  |  |

| PE-PP-EVA   |       |              |  |  |  |
|---|-------|--------------|--|--|--|
| Processing |       |              |  |  |  |
| Injection   | Unit  | Value        |  |  |  |
| Drying temperatures   | °C    | 90           |  |  |  |
| 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.   | °C    | -            |  |  |  |
| Rear Zone temp.   | °C    | -            |  |  |  |
| Center Zone temp.   | °C    | -            |  |  |  |
| Front Zone temp.  | °C    | -            |  |  |  |
| Head temp.  | °C    | -            |  |  |  |
| 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.

| Shrinkage   | Unit | Standard  | Value |
|-------------|------|-----------|-------|
| Flow        | %    | ASTM D955 | 1.72  |
| Across Flow | %    | ASTM D955 | 1.55  |

### Notes

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









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