

# F.G400.A80.N

A soft, colorable SEBS based thermoplastic elastomer (TPE) compound designed for contact with non-fatty foods. The monomers and additives used to produce this product are listed in the Union List of Authorized Substances of Regulation 10/2011/EC and meets the FDA requirements contained in the Code of Federal Regulations, 21 CFR.

| GENERAL PROPERTIES |   |  |
|--------------------|---|--|
| Material Status    | Active  |  |
| Availability       | Europe<br>North America<br>Asia- Pasific<br>Africa & Middle East  |  |
| Features           | Ozone Resistance<br>Adhesion to Polyolefins<br>Recyclable<br>Compliant with RoHS Directive 2011/65/EU<br>can be used in food contact applications in USA, use limitations may apply |  |
| Certification      | RoHS  |  |
| Appearance         | Natural   |  |
| Form               | Pellets   |  |
| Processing Method  | Injection   |  |

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|-------------------------------------|-------------------------|------------------------|------------------------------|--|
| Property                            | Typical Value (English) | Typical Value (SI)     | Test Method                  |  |
| Density                             | 0.90 g/cm <sup>3</sup>  | 0,90 g/cm <sup>3</sup> | ASTM D 792                   |  |
| Durometer Hardness, 3 sec (Shore A) | 80.00                   | 80,00                  | ASTM D 2240                  |  |
| Tensile Strength at Break           | 1740 Psi                | 12,00 MPa              | ASTM D412, Method A          |  |
| Mod.of Elasticity %100              | 450 Psi                 | 3,10 MPa               | ASTM D412, Method A          |  |
| Mod.of Elasticity %300              | 653 Psi                 | 4,50 MPa               | ASTM D412, Method A          |  |
| Elongation at break                 | 850.00 %                | 850,00 %               | ASTM D412, Method A          |  |
| Compression Set (at 73 °F, 22 h)    | 28.00 %                 | 28,00 %                | ASTM D 395, Type 2, Method B |  |
| Compression Set (at 158 °F, 22 h)   | 55.00 %                 | 55,00 %                | ASTM D 395, Type 2, Method B |  |
| Compression Set (at 212 °F, 22 h)   | 72.00 %                 | 72,00 %                | ASTM D 395, Type 2, Method B |  |
| Tear Resistance                     | 285.51 lbf/in           | 50,00 N/mm             | ASTM D624                    |  |

| Shrinkage     |                         |                    |             |  |
|---------------|-------------------------|--------------------|-------------|--|
| Property      | Typical Value (English) | Typical Value (SI) | Test Method |  |
| Flow          | 2.10%                   | 2.10%              | ASTM D955   |  |
| Across Flow   | 1.76%                   | 1.76%              | ASTM D955   |  |
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### elas n ENGINEERING LIFE

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| Ageing Tests              |                         |                    |             |  |  |
|---------------------------|-------------------------|--------------------|-------------|--|--|
| Additional Information    | Typical Value (English) | Typical Value (SI) | Test Method |  |  |
| Ozone Resistance-Stressed | No cracks               | No cracks          | ASTM D 1149 |  |  |
|                           | Bondable to             |                    |             |  |  |
|                           | PE-PP-EVA               |                    |             |  |  |

Elastron products are not compatible with PVC and Acetal. Regrinding level up to %20 is recommended with minimum property loss.

| Processing            |              |                         |              |                    |  |
|-----------------------|--------------|-------------------------|--------------|--------------------|--|
| Injection Molding     | Typical Va   | Typical Value (English) |              | Typical Value (SI) |  |
| Drying temperatures   | -            | °F                      | -            | °C                 |  |
| Drying time           | No need      | hours                   | No need      | hours              |  |
| Rear Zone temp.       | 293-347      | °F                      | 145- 175     | °C                 |  |
| Middle Zone temp.     | 311-365      | °F                      | 155- 185     | °C                 |  |
| Front Zone temp.      | 320-374      | °F                      | 160- 190     | °C                 |  |
| Nozzle Temperature    | 347-401      | °F                      | 175- 205     | °C                 |  |
| Injection Speed       | Low/ Mod     | -                       | Low/ Mod     | -                  |  |
| Injection Time        | 3- 5         | sec.                    | 3- 5         | SEC.               |  |
| Injection Pressure    | 10- 40       | bar                     | 10- 40       | bar                |  |
| Hold Pressure         | 5- 20        | bar                     | 5- 20        | bar                |  |
| Back Pressure         | 5- 40        | bar                     | 5- 40        | bar                |  |
| Screw Speed           | 50- 200      | rpm                     | 50- 200      | rpm                |  |
| Mold Temperature      | 77-122       | °F                      | 25- 50       | °C                 |  |
| Screw Comp. ratio     | 1.5:1- 2.0:1 | -                       | 1.5:1- 2.0:1 | -                  |  |
| Screw L/D ratio       | 18- 24       | -                       | 18- 24       | -                  |  |
| Residence time        | 1-2 shot     | -                       | 1-2 shot     | -                  |  |
| Cushion size          | 0.3120       | inc                     | 8            | mm                 |  |
| Suggested Max Regrind | 20           | %                       | 20           | %                  |  |
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