# Versaflex™ D3226 N

## Thermoplastic Elastomer

### Key Characteristics

**Product Description**

Versaflex™ D3226 N is an easy processing TPE designed for general purpose applications. It is suitable for injection molding, extrusion, blow molding and thermoforming processes.

- Dry Feel
- Easy Processing
- Good Melt Strength
- Soft Touch

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features | • Good Melt Strength | • Good Processability | |
| Uses | • Consumer Applications | • General Purpose | • Toys |
| Agency Ratings | • FDA | | |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Natural Color | | |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

### Technical Properties [1]

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 0.990 | 0.990 | ASTM D792 |
| Melt Mass-Flow Rate (MFR) | | | ASTM D1238 |
| 190°C/2.16 kg | 26 g/10 min | 26 g/10 min | |
| 200°C/5.0 kg | 82 g/10 min | 82 g/10 min | |
| Molding Shrinkage - Flow | 2.0E-3 to 6.0E-3 in/in | 0.20 to 0.60 % | ASTM D955 |
| **Elastomers** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Stress [2, 3] (100% Strain, 73°F (23°C)) | 430 psi | 2.96 MPa | ASTM D412 |
| Tensile Strength [2, 3] (Break, 73°F (23°C)) | 520 psi | 3.59 MPa | ASTM D412 |
| Tensile Elongation [2, 3] (Break, 73°F (23°C)) | 380 % | 380 % | ASTM D412 |
| Tear Strength | 90.0 lbf/in | 15.8 kN/m | ASTM D624 |
| Compression Set (73°F (23°C), 22 hr) | 15 % | 15 % | ASTM D395B |
| **Hardness** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Durometer Hardness (Shore A, 10 sec) | 40 | 40 | ASTM D2240 |

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## Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|---|---|---|
| Rear Temperature | 310 to 380 °F | 154 to 193 °C |
| Middle Temperature | 320 to 390 °F | 160 to 199 °C |
| Front Temperature | 330 to 400 °F | 166 to 204 °C |
| Nozzle Temperature | 330 to 400 °F | 166 to 204 °C |
| Mold Temperature | 70 to 90 °F | 21 to 32 °C |
| Back Pressure | 50.0 to 150 psi | 0.345 to 1.03 MPa |
| Screw Speed | 25 to 75 rpm | 25 to 75 rpm |

**Injection Notes**

Color concentrates ethylene vinyl acetate (EVA) carriers are most suitable for coloring Versaflex™ D3226 N. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow rate of 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. A high color match consistency may be obtained by using precolored compounds available from GLS. Concentrates based on PVC should not be used. The final determination of color concentrate suitability should be determined by customer trials.

Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polystyrene (PS) or polypropylene (PP).

Versaflex™ D3226 N has good melt stability. Maximum residence times may vary, depending on the size of the barrel. Generally, the barrel should be emptied if it is idle for periods of 5 - 8 minutes or longer.

Drying is not Required

Injection Speed: 1 to 5 in/sec
1st Stage - Boost Pressure: 200 to 600 psi
2nd Stage - Hold Pressure: 70% of Boost
Hold Time (Thick Part): 4 to 10 sec
Hold Time (Thin Part): 1 to 3 sec

### Notes

[1] Typical values are not to be construed as specifications.

[2] Die C

[3] 2 hr

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