

# ENFLEX V1045D BLK UV

Thermoplastic Vulcanizate

ENPLAST Americas, a Ravago Group Company

Message:

Enflex V1045D BLK UV TPV (thermoplastic vulcanizate) is a fully weatherable rigid black EPDM/PP compound. This weatherable grade is design for injection molding, extrusion and blow molding applications, requiring rigidity and high heat resistance.

| General Information                   |                               |                   |             |
|---------------------------------------|-------------------------------|-------------------|-------------|
| Features                              | Low compressive deformability |                   |             |
|                                       | Solvent resistance            |                   |             |
|                                       | Good UV resistance            |                   |             |
|                                       | Recyclable materials          |                   |             |
|                                       | Workability, good             |                   |             |
|                                       | Ozone resistance              |                   |             |
|                                       | alkali resistance             |                   |             |
|                                       | Alcohol resistance            |                   |             |
|                                       | Good weather resistance       |                   |             |
|                                       | Heat resistance, high         |                   |             |
|                                       | acid resistance               |                   |             |
|                                       | Detergent resistance          |                   |             |
|                                       | Oil resistance                |                   |             |
|                                       | Medium hardness               |                   |             |
| Appearance                            | Black                         |                   |             |
| Processing Method                     | Blow molding                  |                   |             |
|                                       | Extrusion                     |                   |             |
|                                       | Injection molding             |                   |             |
| Physical                              | Nominal Value                 | Unit              | Test Method |
| Specific Gravity                      | 0.950                         | g/cm <sup>3</sup> | ASTM D792   |
| Hardness                              | Nominal Value                 | Unit              | Test Method |
| Durometer Hardness                    |                               |                   | ASTM D2240  |
| Shaw D, 5 seconds, extruded           | 44                            |                   | ASTM D2240  |
| Shore D, 5 seconds, injection molding | 46                            |                   | ASTM D2240  |
| Elastomers                            | Nominal Value                 | Unit              | Test Method |
| Tensile Stress (100% Strain)          | 10.1                          | MPa               | ASTM D412   |
| Tensile Strength (Break)              | 21.0                          | MPa               | ASTM D412   |
| Tensile Elongation (Break)            | 650                           | %                 | ASTM D412   |
| Tear Strength <sup>1</sup>            | 89.0                          | kN/m              | ASTM D624   |
| Compression Set                       |                               |                   | ASTM D395   |

|                                                                                                                                                                                                                         |                      |                    |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------|--------------------|
| 70°C, 22 hr                                                                                                                                                                                                             | 60                   | %                  | ASTM D395          |
| 125°C, 70 hr                                                                                                                                                                                                            | 85                   | %                  | ASTM D395          |
| <b>Thermal</b>                                                                                                                                                                                                          | <b>Nominal Value</b> | <b>Unit</b>        | <b>Test Method</b> |
| Brittleness Temperature                                                                                                                                                                                                 | -40.0                | °C                 | ASTM D746          |
| Melting Temperature                                                                                                                                                                                                     | 158                  | °C                 | ASTM D1238         |
| Dynamic Service Temperature                                                                                                                                                                                             | 130                  | °C                 |                    |
| <b>Injection</b>                                                                                                                                                                                                        | <b>Nominal Value</b> | <b>Unit</b>        |                    |
| Drying Temperature                                                                                                                                                                                                      | 82.2                 | °C                 |                    |
| Drying Time                                                                                                                                                                                                             | 2.0 - 4.0            | hr                 |                    |
| Suggested Max Moisture                                                                                                                                                                                                  | 0.080                | %                  |                    |
| Rear Temperature                                                                                                                                                                                                        | 177 - 188            | °C                 |                    |
| Middle Temperature                                                                                                                                                                                                      | 182 - 193            | °C                 |                    |
| Front Temperature                                                                                                                                                                                                       | 188 - 199            | °C                 |                    |
| Nozzle Temperature                                                                                                                                                                                                      | 199 - 221            | °C                 |                    |
| Processing (Melt) Temp                                                                                                                                                                                                  | 199 - 232            | °C                 |                    |
| Mold Temperature                                                                                                                                                                                                        | 10.0 - 48.9          | °C                 |                    |
| Injection Pressure                                                                                                                                                                                                      | 5.17 - 8.96          | MPa                |                    |
| Injection Rate                                                                                                                                                                                                          | Fast                 |                    |                    |
| Screw Speed                                                                                                                                                                                                             | 50 - 200             | rpm                |                    |
| Clamp Tonnage                                                                                                                                                                                                           | 4.1 - 6.9            | kN/cm <sup>2</sup> |                    |
| Cushion                                                                                                                                                                                                                 | 5.08 - 12.7          | mm                 |                    |
| <b>Injection instructions</b>                                                                                                                                                                                           |                      |                    |                    |
| Holding Time: 5 to 7 Sec.Cooling Time: 30 to 50 Sec.                                                                                                                                                                    |                      |                    |                    |
| <b>Extrusion</b>                                                                                                                                                                                                        | <b>Nominal Value</b> | <b>Unit</b>        |                    |
| Hopper Temperature                                                                                                                                                                                                      | 160 - 177            | °C                 |                    |
| Cylinder Zone 1 Temp.                                                                                                                                                                                                   | 171 - 191            | °C                 |                    |
| Cylinder Zone 2 Temp.                                                                                                                                                                                                   | 171 - 191            | °C                 |                    |
| Cylinder Zone 3 Temp.                                                                                                                                                                                                   | 171 - 191            | °C                 |                    |
| Cylinder Zone 4 Temp.                                                                                                                                                                                                   | 171 - 191            | °C                 |                    |
| Cylinder Zone 5 Temp.                                                                                                                                                                                                   | 171 - 191            | °C                 |                    |
| Adapter Temperature                                                                                                                                                                                                     | 191 - 210            | °C                 |                    |
| Melt Temperature                                                                                                                                                                                                        | 191 - 199            | °C                 |                    |
| Die Temperature                                                                                                                                                                                                         | 191 - 210            | °C                 |                    |
| <b>Extrusion instructions</b>                                                                                                                                                                                           |                      |                    |                    |
| Screw: L/D 20:1 or greater (L/D 24:1 preferred)Compression Zone: 355 - 390°F (180 - 200°C)Metering Zone: 375 to 410°F (190 to 210°C)Cooling Water: 60 - 85°F (15 - 30°C)Screw Speed: 100 - 200 rpmScreen Pack: 20/40/60 |                      |                    |                    |
| <b>NOTE</b>                                                                                                                                                                                                             |                      |                    |                    |
| 1.                                                                                                                                                                                                                      | C mould              |                    |                    |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

