

FINGERPRINT™ 7545 BK POLYETHYLENE RESIN FOR MICRO-IRRIGATION PIPES



FINGERPRINT™ 7545 BK Compound is a black resin for use in thin-wall micro irrigation tape applications. FINGERPRINT™ 7545 BK combines excellent processing performance with very good draw down characteristics, excellent physical properties and environmental stress crack resistance, required for drip irrigation tapes. Very good UV protection can be provided by well dispersed carbon black with fine particle size.

Main Characteristics

- Easy processing, extrusion consistency and uniformly distributed thin walls
- Very good adhesion properties
- High mechanical strength, excellent ESCR
- Very good thermal and UV stability
- Excellent burst strength

Key Applications

- tubing
- tape

Processing and Storage Recommendations

FINGERPRINT™ 7545 BK can be readily extruded using conventional techniques with melt temperatures between 200°C and 240°C. Specific recommendations for processing conditions can be determined only based on the application and the type of equipment. Please contact your local Dow representative for specific details. FINGERPRINT™ 7545 BK should be stored in dry conditions at temperature below 50°C and protected from UV light exposure. When stored in accordance with good manufacturing practices, the shelf life of the product is 2 years from the date of production.

Dow: A Track Record of Commitment to Plastic Pipes

Dow has close to 30 years of experience in the pipe industry and works with the world's leading pipe extruders and specifiers to develop excellent pipe products. The Company operates pipe technology R&D centers around the world and is constantly working to improve existing resins and develop new materials that help piping systems of all kinds operate at maximum performance.

| Properties ⁽¹⁾ | S.I. | | |
|------------------------------------------------------------|--------------|-------------------|------------|
| Physical | Test Method | Unit | Values |
| Melt Index, 190 °C/2.16 kg | ISO 1133 | g/10 min | 0.55 |
| Density | ISO 1183 (2) | g/cm ³ | 0.958 |
| Environmental Stress-Cracking 122°C (50°C), 10% Igepal, FO | ASTM D1693 | hr | > 2000 |
| Carbon Black Content | ASTM D1693 | % | 2.5 |
| Brittleness Temperature | ASTM D746 | °C | <-80.0 |
| Vicat Softening Temperature | ISO 306 | °C | 122 |
| Melting Temperature | ISO 11357-3 | °C | 128 |
| Oxidation Induction Time 200°C | DIN EN 728 | hr | 1.5 |
| Oxidation Induction Time 210°C | DIN EN 728 | hr | 0.83 |
| Extrusion Melt Temperature | - | °C | 200 to 240 |
| Mechanical Properties ^(1,2) | | | |
| Tensile Stress (Break, Compression Molded) | ISO 527-2 | MPa | 32 |
| Tensile Strain (Break, Compression Molded) | ISO 527-2 | % | 890 |
| Shore Hardness (Shore D, Compression Molded) | ISO 868 | - | 61 |

⁽¹⁾ Typical properties, not to be construed as specifications. Users should confirm results by their own tests.

⁽²⁾ Annealed



FINGERPRINT™ 7545 BK Polyethylene Resin

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