Technical Data Sheet

# *Petrothene* GA808091

W&C Polyolefin Compound

## Product Description

*Petrothene* GA808091 is a broad molecular weight, linear low density polyethylene resin selected by customers for use as a base resin in wire and cable jacketing. An antioxidant package is added to ensure thermal stability during processing.

*Petrothene* GA808091 meets the requirements of the following: ASTM D 1248, Type I, Class A, Category 4, Grade E5; Federal LP390C, Type II, Class L, Category 4, Grade 4.

## Regulatory Status

For regulatory compliance information, see *Petrothene* GA808091 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

| | |
|---|---|
| **Status** | Commercial: Active |
| **Availability** | North America |
| **Application** | Wire & Cable |
| **Market** | Wire & Cable |
| **Processing Method** | Wire & Cable |

| Typical Properties | Nominal Value | English Units | Nominal Value | SI Units | Test Method |
|---|---|---|---|---|---|
| **Physical** | | | | | |
| Melt Flow Rate, (190 °C/2.16 kg) | 0.75 | g/10 min | 0.75 | g/10 min | ASTM D1238 |
| Density, (23 °C) | 0.920 | g/cm³ | 0.920 | g/cm³ | ASTM D1505 |
| **Mechanical** | | | | | |
| Flexural Modulus, (1% Secant) | 50000 | psi | 345 | MPa | ASTM D790 |
| Tensile Stress at Break | 2200 | psi | 15.2 | MPa | ASTM D638 |
| Tensile Stress at Yield | 1700 | psi | 12.0 | MPa | ASTM D638 |
| Tensile Elongation at Break | 650 | % | 650 | % | ASTM D638 |
| Environmental Stress Crack Resistance, $F_{20}$ (10% Igepal®, Cond A) | >1000 | hr | >1000 | hr | ASTM D1693 |
| **Hardness** | | | | | |
| Shore Hardness, (Shore D) | 57 | | 57 | | ASTM D2240 |
| **Thermal** | | | | | |
| Low Temperature Brittleness, $F_{50}$ | <-105 | °F | <-76 | °C | ASTM D746 |
| **Electrical** | | | | | |
| Dielectric Constant, 1 MHz | 2.29 | | 2.29 | | ASTM D150 |
| Dissipation Factor, 1 MHz | 0.00006 | | 0.00006 | | ASTM D150 |



Manufacturer website: https://www.lyondellbasell.com/en/

## Notes

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These are typical property values not to be construed as specification limits.

## Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

## General Extrusion Conditions

*Petrothene* GA808091, like other thermoplastic polyolefin resins, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Petrothene* GA808091. These conditions are intended as general guidelines only, and are not optimum values, since manufacturing variables such as extruder type and size have an effect on processing of thermoplastic resins.

| Extruder Zone | Temperature Range | Extruder Zone | Temperature Range |
|---|---|---|---|
| Feed | 310 - 325 °F (154 - 163 °C) | Zone 4-X | 400 - 425 °F (204 - 218 °C) |
| Zone 2 | 350 - 380 °F (177 - 193 °C) | Adapter | 400 - 425 °F (204 - 218 °C) |
| Zone 3 | 380 - 410 °F (193 - 210 °C) | Die | 400 - 425 °F (204 - 218 °C) |

## Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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