

# PRODUCT DATA SHEET



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## High Density Polyethylene

# HD5208 FLX

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**High Load Melt Index: 9.0 g/10min**

**Density: 0.952 g/cm<sup>3</sup>**

### Features

- High molecular weight hexene copolymer HDPE with a bimodal molecular weight distribution.
- Excellent draw-down for thin films.
- Bubble stability for high rates.
- Good balance of stiffness and toughness.

### Potential Applications

- Thin films for trash can liners, t-shirt bags, merchandise bags, produce bags and roll stock.
- Thick film for multi use applications.

### Additives

- Antioxidant

| Typical properties (not to be construed as specifications) |   | Value (English)         | Value (SI)              | Method     |
|--|---|-------------------------|-------------------------|------------|
| Resin Properties   | Melt Index (190°C/2.16kg)                 | 0.057 g/10min           | 0.057 g/10min           | ASTM D1238 |
|  | High Load Melt Index (190°C/21.6 kg load) | 9.0 g/10min             | 9.0 g/10min             | ASTM D1238 |
|  | Density                                   | 0.952 g/cm <sup>3</sup> | 0.952 g/cm <sup>3</sup> | ASTM D4883 |
| Physical Properties  | Tensile Strength at Yield MD              | 4500 psi                | 31 MPa                  | ASTM D882  |
|  | Tensile Strength at Yield TD              | 3900 psi                | 27 MPa                  | ASTM D882  |
|  | Tensile Strength at Break MD              | 11000 psi               | 76 MPa                  | ASTM D882  |
|  | Tensile Strength at Break TD              | 7000 psi                | 48 MPa                  | ASTM D882  |
|  | Elongation at Break MD                    | >250 %                  | >250 %                  | ASTM D882  |
|  | Elongation at Break TD                    | >350 %                  | >350 %                  | ASTM D882  |
|  | 1% Secant Modulus MD                      | 112000 psi              | 772 MPa                 | ASTM D882  |
|  | 1% Secant Modulus TD                      | 139000 psi              | 958 MPa                 | ASTM D882  |
|  | Dart Drop Impact                          | 350 g                   | 350 g                   | ASTM D1709 |
|  | Elmendorf Tear MD                         | 37 g                    | 37 g                    | ASTM 1922  |
| Elmendorf Tear TD  | 83 g                                      | 83 g                    | ASTM 1922               |            |

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## Handling

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal protection to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapours.

## Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight during storage.

## Combustibility

Polyethylene resins will burn when supplied adequate heat and oxygen. They should be handled and stored away from contact with direct flames and/or other ignition sources. In burning, polyethylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water and water mist preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.

## Conveying

Conveying equipment should be designed to prevent accumulation of fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used:

1. be equipped with adequate filters
2. is operated and maintained in such a manner to ensure no leaks develop
3. that adequate grounding exists at all times

It is further recommended that good housekeeping is practiced throughout the facility.

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