

# **Ultramid® B 3WGM24 HPX BK23210**

## **Extra High Flow Productivity Grade**

# ULTRMID B3WGM24 HPX bk 23210

- **PA6 - 10% glass/20% mineral reinforced resin**
- **Features**
  - **Mineral Glass reinforcement offers a balance of strength and rigidity, while minimizing the part warpage**
  - **PA6 base polymer has enhanced appearance as compared to PA66 yielding making it the best choice for appearance applications**

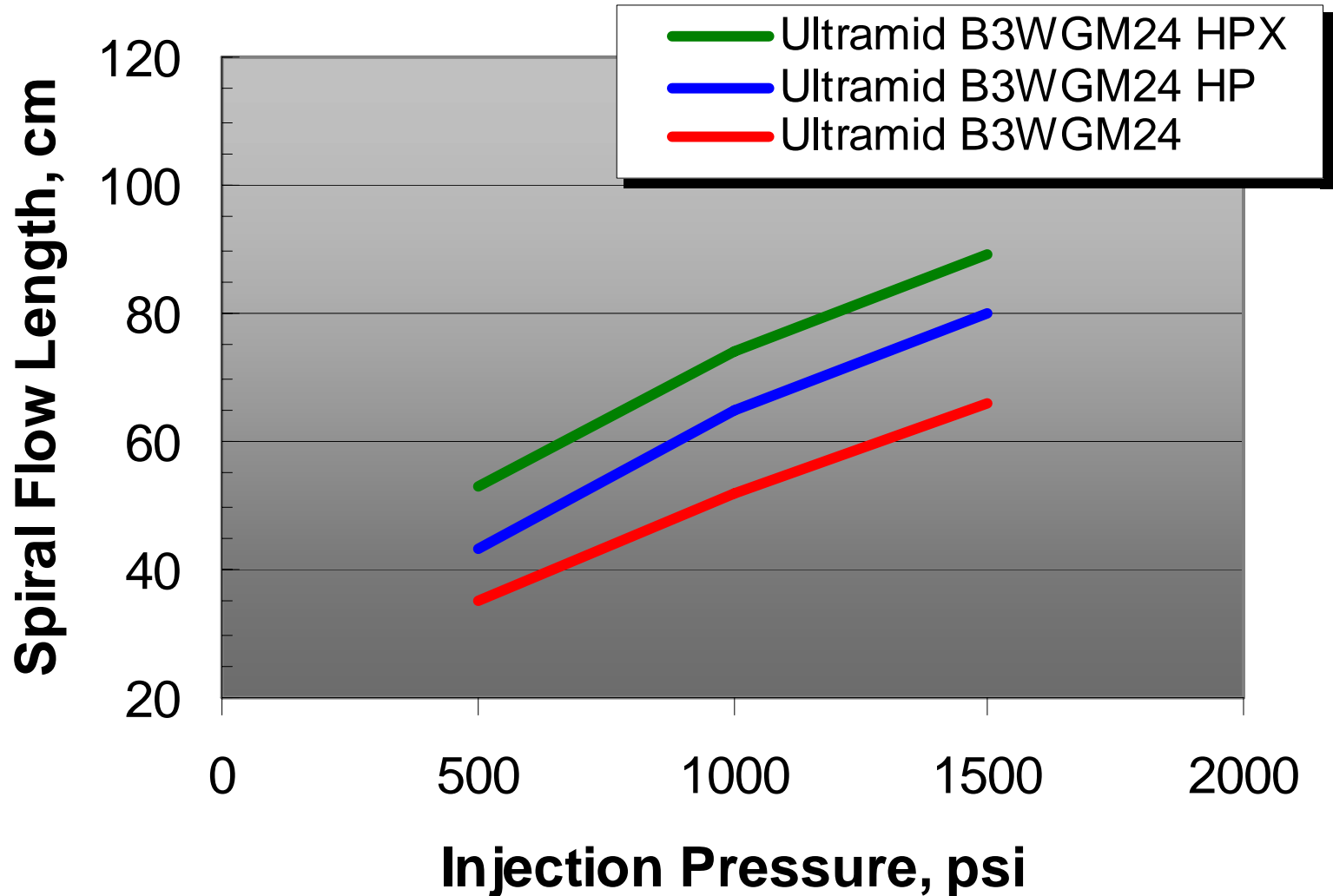
## Processing Comparisons HPX to Standard

- **Clamp tonnage ~ 1/3 less**
- **Flow ~ 40% higher**
- **Similar Physical Properties**

## Benefits:

- **Weight reduction via reduced wall thickness**
- **Faster cycle time = reduced part cost**
- **Lower clamp tonnage = smaller machining = reduced cost and capital investment**

# Spiral Flow Comparison



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| <b>PHYSICAL</b>                        | <b>ISO Test Method</b> | <b>Property Value</b> |                    |
|----------------------------------------|------------------------|-----------------------|--------------------|
| Density, g/cm <sup>3</sup>             | 1183                   | 1.35                  |                    |
| <b>MECHANICAL</b>                      | <b>ISO Test Method</b> | <b>Dry</b>            | <b>Conditioned</b> |
| Tensile Modulus, MPa                   | 527                    |                       |                    |
| 23°C                                   |                        | 9,120                 | -                  |
| Tensile stress at break, MPa           | 527                    |                       |                    |
| 23°C                                   |                        | 167                   | -                  |
| Tensile strain at break, %             | 527                    |                       |                    |
| 23°C                                   |                        | 3                     | -                  |
| Flexural Modulus, MPa                  | 178                    |                       |                    |
| 23°C                                   |                        | 8,170                 | -                  |
| <b>IMPACT</b>                          | <b>ISO Test Method</b> | <b>Dry</b>            | <b>Conditioned</b> |
| Izod Notched Impact, kJ/m <sup>2</sup> | 180                    |                       |                    |
| -40°C                                  |                        | 8                     | -                  |
| 23°C                                   |                        | 9.9                   | -                  |
| Charpy Notched, kJ/m <sup>2</sup>      | 179                    |                       |                    |
| 23°C                                   |                        | 10.1                  | -                  |
| -30°C                                  |                        | 8.3                   | -                  |
| Charpy Unnotched, kJ/m <sup>2</sup>    | 179                    |                       |                    |
| 23°C                                   |                        | 69                    | -                  |
| -30°C                                  |                        | 58                    | -                  |
| <b>THERMAL</b>                         | <b>ISO Test Method</b> | <b>Dry</b>            | <b>Conditioned</b> |
| Melting Point, °C                      | 3146                   | 220                   | -                  |
| HDT A, ° C                             | 75                     | 204                   | -                  |
| HDT B, ° C                             | 75                     | 219                   | -                  |

# Ultramid® B 3WGM24 HPX BK23210

High Flow/Productivity Grade for Engine Beauty Covers

- **OEM: GM**
- **1<sup>ST</sup> Tier: Denso**
- **Molder: Mark IV**
- **SOP: 2008**
- **Engine: L850**



# OEM Material Specifications

- **GMP.PA6.066, a GMW specification is under development**
- **Additional OEM material approvals available with molder sponsorship**

## Typical Profile

Melt Temperature 270-295 °C (518-563 °F)

Mold Temperature 80-95 °C (176-203 °F)

Injection and Packing Pressure 35-125 bar (500-1500 psi)

# ***THANK YOU!***

