



# Makroblend DP4-1386

**Speciality grades / Transparent**

Developmental product&lt;br&gt;Polycarbonate/polyester blend; transparent grade with improved chemical resistance to PC

**ISO Shortname**

| Property                                              | Test Condition                                     | Unit                | Standard    | Value       |
|-------------------------------------------------------|----------------------------------------------------|---------------------|-------------|-------------|
| <b>Rheological properties</b>                         |                                                    |                     |             |             |
| Spiral flow length                                    | 0.100 in, 510 °F melt temperature                  | in                  | Bayer test  | 16          |
| Mold shrinkage, flow/cross to flow                    |                                                    | in/in               | ASTM D 955  | 0.006-0.008 |
| Melt flow rate                                        | 265 °C; 5 kg                                       | g/(10 min)          | ASTM D 1238 | 15-20       |
| <b>Mechanical properties (23 °C/50 % r.h.)</b>        |                                                    |                     |             |             |
| Tensile stress at yield                               |                                                    | lb/in <sup>2</sup>  | ASTM D 638  | 8900        |
| Tensile elongation at yield                           |                                                    | %                   | ASTM D 638  | 5.0         |
| Tensile elongation at break                           |                                                    | %                   | ASTM D 638  | 110         |
| Tensile stress at break                               |                                                    | lb/in <sup>2</sup>  | ASTM D 638  | 8700        |
| Izod notched impact strength                          | 73 °F; 0.100 in                                    | ft-lb/in            | ASTM D 256  | 15          |
| Flexural modulus                                      |                                                    | lb/in <sup>2</sup>  | ASTM D 790  | 330000      |
| Flexural stress at 5 % strain                         |                                                    | lb/in <sup>2</sup>  | ASTM D 790  | 12000       |
| Instrumented impact, Total energy                     | 73 °F; 0.125 in; 0.5-in dart; 3-in clamp; 7.6 mph  | ft-lb               | ASTM D 3763 | 51          |
| Instrumented impact, Total energy                     | -20 °F; 0.125 in; 0.5-in dart; 3-in clamp; 15 mph  | ft-lb               | ASTM D 3763 | 51          |
| Instrumented impact, Total energy                     | -40 °F; 0.125 in; 0.5-in dart; 3-in clamp; 7.6 mph | ft-lb               | ASTM D 3763 | 51          |
| Rockwell hardness                                     |                                                    | R Scale             | ASTM D 785  | 124         |
| <b>Thermal properties</b>                             |                                                    |                     |             |             |
| Deflection temperature under load, Unannealed         | 264 psi; 0.250 in                                  | °F                  | ASTM D 648  | 220         |
| Deflection temperature under load, Unannealed         | 66 psi; 0.250 in                                   | °F                  | ASTM D 648  | 240         |
| Relative temperature index, mechanical with impact    | Thickness tested: 1.5 mm                           | °C                  | UL 746 B    | 85          |
| Relative temperature index, electrical                | Thickness tested: 1.5 mm                           | °C                  | UL 746 B    | 95          |
| Relative temperature index, mechanical without impact | Thickness tested: 1.5 mm                           | °C                  | UL 746 B    | 90          |
| <b>Other properties (23 °C)</b>                       |                                                    |                     |             |             |
| Water absorption                                      | 73 °F; immersion to saturation                     | %                   | ASTM D 570  | 0.17        |
| Specific volume                                       |                                                    | in <sup>3</sup> /lb | ASTM D 792  | 23.1        |
| Density                                               |                                                    | lb/in <sup>3</sup>  | ASTM D 792  | 0.043       |
| <b>Material specific properties</b>                   |                                                    |                     |             |             |
| Haze for transparent materials                        |                                                    | %                   | ASTM D 1003 | 0.5         |

**Makroblend<sup>®</sup>**

ASTM Data

