



# CYCOLACT™ RESIN DL100LG

REGION AMERICAS

## DESCRIPTION

CYCOLAC DL100LG is a low gloss, high heat, high impact ABS/PC blend with low emission

## TYPICAL PROPERTY VALUES

| PROPERTIES                                  | TYPICAL VALUES | UNITS             | TEST METHODS |
|---------------------------------------------|----------------|-------------------|--------------|
| <b>MECHANICAL</b>                           |                |                   |              |
| Tensile Stress, yld, Type I, 50 mm/min      | 51             | MPa               | ASTM D638    |
| Tensile Stress, brk, Type I, 50 mm/min      | 38             | MPa               | ASTM D638    |
| Tensile Stress, yld, Type I, 5 mm/min       | 47             | MPa               | ASTM D638    |
| Tensile Stress, brk, Type I, 5 mm/min       | 40             | MPa               | ASTM D638    |
| Tensile Strain, yld, Type I, 50 mm/min      | 4              | %                 | ASTM D638    |
| Tensile Strain, brk, Type I, 50 mm/min      | 12             | %                 | ASTM D638    |
| Tensile Strain, yld, Type I, 5 mm/min       | 4              | %                 | ASTM D638    |
| Tensile Strain, brk, Type I, 5 mm/min       | 85             | %                 | ASTM D638    |
| Tensile Modulus, 50 mm/min                  | 2240           | MPa               | ASTM D638    |
| Tensile Stress, yield, 5 mm/min             | 47             | MPa               | ISO 527      |
| Tensile Stress, break, 5 mm/min             | 36             | MPa               | ISO 527      |
| Tensile Stress, yield, 50 mm/min            | 51             | MPa               | ISO 527      |
| Tensile Stress, break, 50 mm/min            | 39             | MPa               | ISO 527      |
| Tensile Strain, yield, 5 mm/min             | 4              | %                 | ISO 527      |
| Tensile Strain, break, 5 mm/min             | 50             | %                 | ISO 527      |
| Tensile Strain, yield, 50 mm/min            | 4              | %                 | ISO 527      |
| Tensile Strain, break, 50 mm/min            | 12             | %                 | ISO 527      |
| Tensile Modulus, 1 mm/min                   | 2200           | MPa               | ISO 527      |
| Flexural Stress, yield, 2 mm/min            | 74             | MPa               | ISO 178      |
| Flexural Modulus, 2 mm/min                  | 2200           | MPa               | ISO 178      |
| Ball Indentation Hardness, H358/30          | 80             | MPa               | ISO 2039-1   |
| <b>IMPACT</b>                               |                |                   |              |
| Izod Impact, notched, 23°C                  | 380            | J/m               | ASTM D256    |
| Izod Impact, notched, -30°C                 | 115            | J/m               | ASTM D256    |
| Izod Impact, notched 80*10*3 +23°C          | 45             | kJ/m <sup>2</sup> | ISO 180/1A   |
| Izod Impact, notched 80*10*3 -30°C          | 19             | kJ/m <sup>2</sup> | ISO 180/1A   |
| Izod Impact, notched 80*10*4 +23°C          | 28             | kJ/m <sup>2</sup> | ISO 180/1A   |
| Izod Impact, notched 80*10*4 -30°C          | 11             | kJ/m <sup>2</sup> | ISO 180/1A   |
| Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm  | 22             | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm | 11             | kJ/m <sup>2</sup> | ISO 179/1eA  |
| <b>THERMAL</b>                              |                |                   |              |
| HDT, 1.82 MPa, 6.4 mm, unannealed           | 85             | °C                | ASTM D648    |
| CTE, -40°C to 40°C, flow                    | 8.2E-05        | 1/°C              | ISO 11359-2  |
| CTE, -40°C to 40°C, xflow                   | 8.3E-05        | 1/°C              | ISO 11359-2  |
| Vicat Softening Temp, Rate A/50             | 118            | °C                | ISO 306      |

| PROPERTIES                              | TYPICAL VALUES | UNITS       | TEST METHODS |
|-----------------------------------------|----------------|-------------|--------------|
| Vicat Softening Temp, Rate A/ 120       | 120            | °C          | ISO 306      |
| Vicat Softening Temp, Rate B/ 50        | 105            | °C          | ISO 306      |
| Vicat Softening Temp, Rate B/ 120       | 107            | °C          | ISO 306      |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm  | 103            | °C          | ISO 75 /Bf   |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm   | 84             | °C          | ISO 75 /Af   |
| PHYSICAL                                |                |             |              |
| Mold Shrinkage on Tensile Bar, flow     | 0.5 – 0.7      | %           | SABIC method |
| Melt Flow Rate, 220°C/ 10.0 kgf         | 10             | g/ 10 min   | ASTM D1238   |
| Density                                 | 1.08           | g/cm³       | ISO 1183     |
| Melt Volume Rate, MVR at 220°C/ 10.0 kg | 10             | cm³/ 10 min | ISO 1133     |
| Melt Volume Rate, MVR at 260°C/ 5.0 kg  | 12             | cm³/ 10 min | ISO 1133     |
| INJECTION MOLDING                       |                |             |              |
| Drying Temperature                      | 90 – 100       | °C          |              |
| Drying Time                             | 2 – 4          | Hrs         |              |
| Maximum Moisture Content                | 0.1            | %           |              |
| Melt Temperature                        | 250 – 280      | °C          |              |
| Nozzle Temperature                      | 245 – 275      | °C          |              |
| Front - Zone 3 Temperature              | 250 – 280      | °C          |              |
| Middle - Zone 2 Temperature             | 250 – 280      | °C          |              |
| Rear - Zone 1 Temperature               | 230 – 260      | °C          |              |
| Hopper Temperature                      | 60 – 80        | °C          |              |
| Mold Temperature                        | 40 – 80        | °C          |              |