

# SABIC CYCOLAC™ DL100

CYCOLAC DL100 is a high heat, high impact, low emissions ABS/PC blend.  
Information provided by SABIC

| Physical Properties         | Metric                                               | English                                              | Comments                          |
|-----------------------------|------------------------------------------------------|------------------------------------------------------|-----------------------------------|
| Density                     | 1.08 g/cc                                            | 0.0390 lb/in <sup>3</sup>                            | ISO 1183                          |
| Linear Mold Shrinkage, Flow | 0.0050 - 0.0070 cm/cm                                | 0.0050 - 0.0070 in/in                                | SABIC method                      |
| Melt Flow                   | 7.0 g/10 min<br>@Load 10.0 kg,<br>Temperature 220 °C | 7.0 g/10 min<br>@Load 22.0 lb,<br>Temperature 428 °F | ISO 1133                          |
|                             | 8.0 g/10 min<br>@Load 5.00 kg,<br>Temperature 260 °C | 8.0 g/10 min<br>@Load 11.0 lb,<br>Temperature 500 °F | cm <sup>3</sup> /10 min; ISO 1133 |

| Mechanical Properties      | Metric                                          | English                                             | Comments                              |
|----------------------------|-------------------------------------------------|-----------------------------------------------------|---------------------------------------|
| Hardness, Rockwell R       | 104                                             | 104                                                 | ASTM D785                             |
| Ball Indentation Hardness  | 91.0 MPa                                        | 13200 psi                                           | ISO 2039-1                            |
| Tensile Strength, Yield    | 44.0 MPa                                        | 6380 psi                                            | 5 mm/min; ASTM D638                   |
|                            | 45.0 MPa                                        | 6530 psi                                            | 50 mm/min; ISO 527                    |
|                            | 46.0 MPa                                        | 6670 psi                                            | 5 mm/min; ISO 527                     |
| Elongation at Break        | 10 %                                            | 10 %                                                | 50 mm/min; ISO 527                    |
|                            | 60 %                                            | 60 %                                                | 5 mm/min; ISO 527                     |
|                            | 90 %                                            | 90 %                                                | 5 mm/min; ASTM D638                   |
| Elongation at Yield        | 3.4 %                                           | 3.4 %                                               | 50 mm/min; ISO 527                    |
|                            | 3.5 %                                           | 3.5 %                                               | 5 mm/min; ISO 527                     |
| Tensile Modulus            | 2.20 GPa                                        | 319 ksi                                             | 1mm/min; ISO 527                      |
|                            | 2.24 GPa                                        | 325 ksi                                             | 5 mm/min; ASTM D638                   |
| Flexural Yield Strength    | 69.0 MPa                                        | 10000 psi                                           | 2 mm/min; ISO 178                     |
| Flexural Modulus           | 2.25 GPa                                        | 326 ksi                                             | 2 mm/min; ISO 178                     |
| Izod Impact, Notched       | 7.00 J/cm                                       | 13.1 ft-lb/in                                       | ASTM D256                             |
|                            | 5.50 J/cm<br>@Thickness 6.40 mm                 | 10.3 ft-lb/in<br>@Thickness 0.252 in                | ASTM D256                             |
| Izod Impact, Notched (ISO) | 35.0 kJ/m <sup>2</sup>                          | 16.7 ft-lb/in <sup>2</sup>                          | 80*10*4; ISO 180/1A                   |
|                            | 15.0 kJ/m <sup>2</sup><br>@Temperature -30.0 °C | 7.14 ft-lb/in <sup>2</sup><br>@Temperature -22.0 °F | 80*10*4; ISO 180/1A                   |
| Charpy Impact, Notched     | 3.40 J/cm <sup>2</sup>                          | 16.2 ft-lb/in <sup>2</sup>                          | Edgew 80*10*4<br>sp=62mm; ISO 179/1eA |
|                            | 1.40 J/cm <sup>2</sup><br>@Temperature -30.0 °C | 6.66 ft-lb/in <sup>2</sup><br>@Temperature -22.0 °F | Edgew 80*10*4 sp                      |