

# Miramid® SE30CW

Polyamide 66  
BASF Leuna GmbH

Message:

Miramid® SE30CW is a Polyamide 66 (Nylon 66) material filled with 30% glass fiber. It is available in Europe for injection molding.  
Important attributes of Miramid® SE30CW are:  
Flame Rated  
Chemical Resistant  
Crystalline  
Fast Molding Cycle  
Good Dimensional Stability  
Typical applications include:  
Automotive  
Coating Applications  
Housings

| General Information    |      |                                  |       |                       |
|------------------------|------|----------------------------------|-------|-----------------------|
| Filler / Reinforcement |      | Glass Fiber,30% Filler by Weight |       |                       |
| Additive               |      | Heat Stabilizer                  |       |                       |
|                        |      | Mold Release                     |       |                       |
| Features               |      | Crystalline                      |       |                       |
|                        |      | Fast Molding Cycle               |       |                       |
|                        |      | Fuel Resistant                   |       |                       |
|                        |      | Good Dimensional Stability       |       |                       |
|                        |      | Good Flow                        |       |                       |
|                        |      | Good Stiffness                   |       |                       |
|                        |      | Grease Resistant                 |       |                       |
|                        |      | High Heat Resistance             |       |                       |
|                        |      | High Rigidity                    |       |                       |
|                        |      | Oil Resistant                    |       |                       |
| Uses                   |      | Automotive Applications          |       |                       |
|                        |      | Automotive Under the Hood        |       |                       |
|                        |      | Housings                         |       |                       |
|                        |      | Protective Coverings             |       |                       |
| Forms                  |      | Granules                         |       |                       |
| Processing Method      |      | Injection Molding                |       |                       |
| Physical               | Dry  | Conditioned                      | Unit  | Test Method           |
| Density                | 1360 | --                               | kg/m³ | ISO 1183 <sup>1</sup> |
| Water Absorption       |      |                                  |       | ISO 62 <sup>2</sup>   |

|                                         |             |             |                    |                                  |
|-----------------------------------------|-------------|-------------|--------------------|----------------------------------|
| Saturation                              | 5.3         | --          | %                  |                                  |
| Equilibrium                             | 1.6         | --          | %                  |                                  |
| Viscosity number                        | 145         | --          | cm <sup>3</sup> /g | ISO 307, 1157, 1628 <sup>3</sup> |
| Hardness                                | Dry         | Conditioned | Unit               | Test Method                      |
| Ball Indentation Hardness               | 240         | --          | MPa                | ISO 2039-1                       |
| Mechanical                              | Dry         | Conditioned | Unit               | Test Method                      |
| Tensile modulus                         | 10000       | 7000        | MPa                | ISO 527-2 <sup>4</sup>           |
| Tensile Stress (Break)                  | 185         | 140         | MPa                | ISO 527-2 <sup>5</sup>           |
| Tensile Strain (Break)                  | 3.0         | 5.0         | %                  | ISO 527-2 <sup>6</sup>           |
| Flexural Stress <sup>7</sup>            | 270         | 200         | MPa                | ISO 178                          |
| Impact                                  | Dry         | Conditioned | Unit               | Test Method                      |
| Charpy notched impact strength          |             |             |                    | ISO 179/1eA <sup>8</sup>         |
| -30°C                                   | 9.00        | --          | kJ/m <sup>2</sup>  |                                  |
| 23°C                                    | 10.0        | 12.0        | kJ/m <sup>2</sup>  |                                  |
| Charpy impact strength                  |             |             |                    | ISO 179/1eU <sup>9</sup>         |
| -30°C                                   | 45.0        | --          | kJ/m <sup>2</sup>  |                                  |
| 23°C                                    | 80.0        | 90.0        | kJ/m <sup>2</sup>  |                                  |
| Thermal                                 | Dry         | Conditioned | Unit               | Test Method                      |
| Deflection Temperature Under Load       |             |             |                    | ISO 75-2 <sup>10</sup>           |
| 0.45 MPa                                | 250         | --          | °C                 |                                  |
| 1.8 MPa                                 | 250         | --          | °C                 |                                  |
| Continuous Use Temperature              |             |             |                    | ISO 2578                         |
| -- <sup>11</sup>                        | 130         | --          | °C                 |                                  |
| -- <sup>12</sup>                        | 160         | --          | °C                 |                                  |
| -- <sup>13</sup>                        | 240         | --          | °C                 |                                  |
| Melting Temperature (DSC)               | 260         | --          | °C                 | ISO 3146                         |
| Electrical                              | Dry         | Conditioned | Unit               | Test Method                      |
| Volume resistivity                      | 1.0E+13     | 1.0E+10     | ohms·m             | IEC 60093 <sup>14</sup>          |
| Dielectric Constant (1 MHz)             | 3.50        | 5.50        |                    | IEC 60250                        |
| Dissipation Factor (1 MHz)              | 0.015       | 0.30        |                    | IEC 60250 <sup>15</sup>          |
| Comparative tracking index              | 450         | --          |                    | IEC 60112 <sup>16</sup>          |
| Flammability                            | Dry         | Conditioned | Unit               | Test Method                      |
| Burning Rate (1.00 mm)                  | < 100       | --          | mm/min             | FMVSS 302                        |
| Flame Rating (1.50 mm)                  | HB          | --          |                    | UL 94                            |
| Burning Behav. at thickness h (1.50 mm) | HB          | --          |                    | ISO 1210 <sup>17</sup>           |
| Glow Wire Flammability Index (1.00 mm)  | 650         | --          | °C                 | IEC 60695-2-12                   |
| Injection                               | Dry         | Unit        |                    |                                  |
| Processing (Melt) Temp                  | 280 to 300  |             | °C                 |                                  |
| Mold Temperature                        | 80.0 to 100 |             | °C                 |                                  |

| NOTE |                                                                           |
|------|---------------------------------------------------------------------------|
| 1.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 2.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 3.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 4.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 5.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 6.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 7.   | Typical values for uncoloured product at 23°C and 50% relative humidity   |
| 8.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 9.   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 10.  | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 11.  | Temperature index at loss of 50% tensile strength, 20000h                 |
| 12.  | Temperature index at loss of 50% tensile strength, 5000h                  |
| 13.  | Short time                                                                |
| 14.  | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 15.  | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 16.  | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |
| 17.  | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted. |

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