

Product Texts

SABIC® PPcompound 7705 is a mineral filled modified polypropylene. This material combines high scratch resistance, high stiffness, good impact and high flow. This material has a very broad processing window combined with good esthetical performance. Typical applications include esthetical automotive interior parts such as instrument panels, lower and upper dashboard, door panels and trim. SABIC® PPcompound 7705 is a designated automotive grade. IMDS ID: 16161010

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|-------------------------------------|-------|---------|---------------|
| ISO Data | | | |
| Melt flow index, MFI | 22 | g/10min | ISO 1133 |
| Temperature | 230 | °C | - |
| Load | 2.16 | kg | - |

| Mechanical properties | Value | Unit | Test Standard |
|---------------------------------------|-------|-------------------|---------------|
| ISO Data | | | |
| Tensile Modulus | 1800 | MPa | ISO 527 |
| Yield stress | 22 | MPa | ISO 527 |
| Yield strain | 4.4 | % | ISO 527 |
| Stress at break | 17 | MPa | ISO 527 |
| Strain at break | 35 | % | ISO 527 |
| Flexural modulus, 23°C | 1900 | MPa | ISO 178 |
| Charpy notched impact strength, +23°C | N | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 2 | kJ/m ² | ISO 179/1eA |
| Izod notched impact strength | 4 | kJ/m ² | ISO 180/1A |
| ASTM Data | | | |
| Tensile Modulus | 1900 | MPa | ASTM D 638 |
| Tensile Strength at Yield | 23 | MPa | ASTM D 638 |
| Tensile Strength at Break | 16 | MPa | ASTM D 638 |
| Elongation at Yield | 4.6 | % | ASTM D 638 |
| Elongation at Break | 24 | % | ASTM D 638 |
| Flexural Modulus | 1900 | MPa | ASTM D 790 |
| Shore D Hardness | 60 | - | ASTM D 2240 |

| Thermal properties | Value | Unit | Test Standard |
|--|-------|------|---------------|
| ISO Data | | | |
| Temp. of deflection under load, 1.80 MPa | 59 | °C | ISO 75-1/-2 |
| Temp. of deflection under load, 0.45 MPa | 105 | °C | ISO 75-1/-2 |
| Vicat softening temperature, A | 130 | °C | ISO 306 |
| ASTM Data | | | |
| DTUL @ 66 psi | 112 | °C | ASTM D 648 |
| DTUL @ 264 psi | 57 | °C | ASTM D 648 |

| Other properties | Value | Unit | Test Standard |
|------------------|-------|-------------------|---------------|
| Density | 1040 | kg/m ³ | ISO 1183 |
| Density | 1050 | kg/m ³ | ASTM D 792 |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature | 80 - 100 | °C | - |
| Pre-drying - Time | 2 - 4 | h | - |
| Melt temperature | 210 - 270 | °C | - |
| Mold temperature | 15 - 60 | °C | - |
| Zone 1 | 190 - 230 | °C | - |
| Zone 2 | 200 - 250 | °C | - |
| Zone 3 | 210 - 270 | °C | - |
| Nozzle temperature | 210 - 270 | °C | - |
| Back pressure | 1 - 1.5 | MPa | - |