

DSM Engineering Plastics - Property Data

Xantar[®] 24 SR FD

PC-unfilled

Medium Viscosity, Steam Resistant, Food Grade

| Properties | Typical Data | Unit | Test Method |
|--|--------------|------------------------|-----------------|
| RHEOLOGICAL PROPERTIES | | | |
| Melt volume-flow rate | 7 | cm ³ /10min | ISO 1133 |
| Temperature | 300 | °C | ISO 1133 |
| Load | 1.2 | kg | ISO 1133 |
| Molding shrinkage (parallel) | 0.6 | % | ISO 294-4 |
| MECHANICAL PROPERTIES | | | |
| Tensile modulus | 2300 | MPa | ISO 527-1/-2 |
| Yield stress | 60 | MPa | ISO 527-1/-2 |
| Yield strain | 6 | % | ISO 527-1/-2 |
| Nominal strain at break | >50 | % | ISO 527-1/-2 |
| Flexural modulus | 2400 | MPa | ISO 178 |
| Flexural strength | 90 | MPa | ISO 178 |
| Izod notched impact strength (23°C) | 80 | kJ/m ² | ISO 180/4A |
| Rockwell hardness, M scale | 70 | - | ISO 2039-2 |
| THERMAL PROPERTIES | | | |
| Temp. of deflection under load (1.80 MPa) | 130 | °C | ISO 75-1/-2 |
| Vicat softening temperature (50°C/h 50N) | 150 | °C | ISO 306 |
| Coeff. of linear therm. expansion (parallel) | 0.65 | E-4/°C | ISO 11359-1/-2 |
| Burning Behav. at 1.6 mm nom. thickn. | V-2 | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | IEC 60695-11-10 |
| Burning Behav. at thickness h | V-2 | class | IEC 60695-11-10 |
| Thickness tested | 0.75 | mm | IEC 60695-11-10 |
| Oxygen index | 26 | % | ISO 4589-1/-2 |
| Ball pressure temperature | 125 | °C | IEC 60695-10-2 |
| Glow Wire Flammability Index GWFI | 800 | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 1.5 | mm | IEC 60695-2-12 |
| Glow Wire Flammability Index GWFI | 960 | °C | IEC 60695-2-12 |
| GWFI (Thickness (2) tested) | 3 | mm | IEC 60695-2-12 |
| Glow Wire Ignition Temperature GWIT | 825 | °C | IEC 60695-2-13 |
| GWIT (Thickness (1) tested) | 1.5 | mm | IEC 60695-2-12 |
| Glow Wire Ignition Temperature GWIT | 875 | °C | IEC 60695-2-13 |
| GWIT (Thickness (2) tested) | 3 | mm | IEC 60695-2-12 |
| Relative Temperature Index - electrical | 130 | °C | UL746B |
| RTI electrical (Thickness (1) tested) | 0.75 | mm | UL746B |
| Relative Temperature Index - electrical | 130 | °C | UL746B |
| RTI electrical (Thickness (2) tested) | 3 | mm | UL746B |
| Relative Temperature Index - with impact | 125 | °C | UL746B |
| RTI with impact (Thickness (1) tested) | 0.75 | mm | UL746B |
| Relative Temperature Index - with impact | 130 | °C | UL746B |
| RTI with impact (Thickness (2) tested) | 3 | mm | UL746B |

23.07.2004

DSM Product

Unlimited. DSM

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information.

DSM Engineering Plastics - Property Data

Xantar[®] 24 SR FD

PC-unfilled

| | | | |
|---|-------------|----|--------|
| Relative Temperature Index - without impact | 125 | °C | UL746B |
| RTI without impact (Thickness (1) tested) | 0.75 | mm | UL746B |
| Relative Temperature Index - without impact | 130 | °C | UL746B |
| RTI without impact (Thickness (2) tested) | 3 | mm | UL746B |

ELECTRICAL PROPERTIES

| | | | |
|----------------------------------|-----------------|-------|-------------|
| Relative permittivity (100Hz) | 3 | - | IEC 60250 |
| Relative permittivity (1 MHz) | 2.9 | - | IEC 60250 |
| Dissipation factor (100 Hz) | 6.6 | E-4 | IEC 60250 |
| Dissipation factor (1 MHz) | 92 | E-4 | IEC 60250 |
| Volume resistivity | >1E13 | Ohm*m | IEC 60093 |
| Surface resistivity | >1E15 | Ohm | IEC 60093 |
| Electric strength | 29 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 225 | - | IEC 60112 |
| Comparative tracking index (PLC) | 2 | class | UL 746A |

OTHER PROPERTIES

| | | | |
|---------------------|-------------|-------------------|----------------|
| Water absorption | 0.35 | % | Sim. to ISO 62 |
| Density | 1200 | kg/m ³ | ISO 1183 |
| Light transmittance | 89 | % | ASTM D1003 |

MATERIAL SPECIFIC PROPERTIES

| | | | |
|---------------------------|-----------|--------------------|------------|
| Limiting Viscosity Number | 52 | cm ³ /g | ISO 1628-4 |
|---------------------------|-----------|--------------------|------------|

RHEOLOGICAL CALCULATION PROPERTIES

| | | | |
|------------------------------|-------------|---------|---|
| Thermal conductivity of melt | 0.24 | W/(m K) | - |
|------------------------------|-------------|---------|---|

23.07.2004

DSM Product

Unlimited. **DSM**

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information.