

# Xantar<sup>®</sup> 18 UR

## Property Data

PC

Extremely Low Viscosity, UV Stabilized, Molding Release

Properties	Typical Data	Unit	Test Method
<b>RHEOLOGICAL PROPERTIES</b>			
Melt volume-flow rate	23	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	ISO 1133
Load	1.2	kg	ISO 1133
Molding shrinkage (parallel)	0.6	%	ISO 294-4
<b>MECHANICAL PROPERTIES</b>			
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)	60	kJ/m <sup>2</sup>	ISO 180/4A
Rockwell hardness, M scale	70	-	ISO 2039-2
<b>THERMAL PROPERTIES</b>			
Temp. of deflection under load (1.80 MPa)	130	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	145	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	0.65	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 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 60695-2-13
Glow Wire Ignition Temperature GWIT	875	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	3	mm	IEC 60695-2-13
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

02.02.2009

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. Typical values are indicative only and are not to be construed as being binding specifications.

# Xantar<sup>®</sup> 18 UR

RTI with impact (Thickness (2) tested)	<b>3</b>	mm	UL746B
Relative Temperature Index - without impact	<b>125</b>	°C	UL746B
RTI without impact (Thickness (1) tested)	<b>0.75</b>	mm	UL746B
Relative Temperature Index - without impact	<b>130</b>	°C	UL746B
RTI without impact (Thickness (2) tested)	<b>3</b>	mm	UL746B

## ELECTRICAL PROPERTIES

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

## OTHER PROPERTIES

Water absorption	<b>0.35</b>	%	Sim. to ISO 62
Density	<b>1200</b>	kg/m <sup>3</sup>	ISO 1183
Light transmittance	<b>89</b>	%	ASTM D1003

## MATERIAL SPECIFIC PROPERTIES

Limiting Viscosity Number	<b>43</b>	cm <sup>3</sup> /g	ISO 1628-4
---------------------------	-----------	--------------------	------------

## RHEOLOGICAL CALCULATION PROPERTIES

Thermal conductivity of melt	<b>0.24</b>	W/(m K)	-
------------------------------	-------------	---------	---

02.02.2009

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. Typical values are indicative only and are not to be construed as being binding specifications.