

# Technical data sheet

## Paneltim® Sandwich Panels 50/100 in PP RAL 7032 UV



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### General Material Properties \*

◆ General properties	Value	Units	Test Method	Remarks
Type of material	<b>PP Block Copolymer</b>			
Density	+/- <b>0.905</b>	g/cm <sup>3</sup>	ISO 1183	
Melt Flow Index	<b>6 +/- 2</b>	g/10min	ISO 1133	at 230°C/2,16 kg
Stress at Yield	<b>&gt;= 30</b>	Mpa	ISO 527	
Strain at Yield	<b>&gt;= 10</b>	%	ISO 527	
Flex E-Modulus	<b>1200-1550</b>	Mpa	ISO 178	
Notched Izod	<b>&gt;= 10</b>	kJ/m <sup>2</sup>	ISO 180	at 23°C
	<b>&gt;= 5</b>	kJ/m <sup>2</sup>	ISO 180	at 0°C
	<b>&gt;= 3</b>	kJ/m <sup>2</sup>	ISO 180	at -20°C
Hardness	<b>67 +/- 2</b>	Shore D	ISO 868	
Cristaline Melt Point	<b>163 +/- 3</b>	°C	DSC	
Caloric value	<b>+/- 45</b>	Mjoule/kg		
Water absorption	<b>&lt; 0,05</b>	%		
◆ ROHS			EC2002/95	
◆ Chemical resistance				
Oils and greases	Excellent resistance			
Cleaning and disinfectant products	Excellent resistance			
Midrew, algae and bacteria	Excellent resistance			
Most acids, alkali, salts & others	List of chemical resistances on request			

\* We work with values within a range (+ / -, >=) because of variations in specific characteristics of raw materials of different suppliers.

### Panel properties

◆ Standard dimensions	Value	Units	Test method	Remarks
Length x width	<b>2600 x 1000</b> (+/- 0,4%)	mm	measured at 20 °C	
Thickness	<b>50</b> (+/- 3%)	mm	measured at 20 °C	
◆ Weight	Value	Units	Test method	Remarks
	<b>9,42</b> (+/- 4%)	kg/m <sup>2</sup>	measured at 20 °C	
◆ Mechanical	Value	Units	Test method	Remarks
Equivalent E-Modulus	<b>530</b>	Mpa	(100mm aligned)	Paneltim® test report on demand
	<b>236</b>	Mpa	(100mm across)	
Impact resistance	<b>&gt;= 1,5</b>	m	Dart drop test 2,7 kg impactradius 1,5"	
◆ Electrical properties	Value	Units	Test method	Remarks
Surface resistance	<b>&gt;= 10 exp14</b>	Ohm	DIN VDE 0303	Paneltim® test report on demand

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◆ Thermal properties	Value	Units	Test method	Remarks	
Thermal conductivity	<b>1,8</b>	W/m <sup>2</sup> °K		Paneltim® test report on demand	
Linear thermal expansion	<b>1,2 - 1,5mm/m/10°C</b>	°C	Paneltim®	In an area range from -20°C to + 80°C	
Utilisation range					
Permanent	Air	<b>-20°C tot + 80°</b>	°C	Related to load and environment conditions	
Permanent	Water	<b>0°C tot + 40°C</b>	°C	Others on demand	
Shortly	Steam	<b>0°C tot + 100°C</b>	°C	For cleaning	
Euro fire resistance	<b>E</b>		EN-ISO 11925-2	Paneltim® test report on demand	
◆ UV and Weathering Resistances	Value	Units	Test method	Remarks	
UV resistant panels	<b>10</b>	year	Q-Sun	In mid european climate	
				50 % of mechanical characteristics maintain	
				KLangley <= 100	
◆ Sound insulation	Value	Units	Test method	Remarks	
	<b>RW 25-26</b>	<b>dB</b>	EN ISO 717-1	Paneltim® test report on demand	
◆ Welding guidelines parameters *	Value	Units	Test method	Remarks	
<b>Butwelding</b>	Melting	<b>+/- 30</b>	sec	Paneltim®	0,12 N/m <sup>2</sup>
	Heating	<b>+/- 0</b>	sec		0,05 N/m <sup>2</sup>
	Welding	<b>+/- 30</b>	sec		0,12 N/m <sup>2</sup>
Thickness panel	<b>8-18</b>	mm			
Temperature	<b>188</b>	°C			
<b>Extrusion welding</b>	Bulk T°	<b>223</b>	°C	SKZ	Paneltim® test report on demand
	Hotgas T°	<b>265-270</b>	°C		
	Hotgas flow rate	<b>300</b>	l/min		
	Shoe width	<b>14</b>	mm		
Shoe length	<b>40</b>	mm			
Shoe A-Value	<b>6-8</b>	mm			
<b>Hot air welding</b>	T°	<b>265-270</b>	°C	Paneltim®	
* Values can vary depending the type of welding machine.					
◆ Food contact	Value	Units	Test method	Remarks	
			EC1935/2004	Paneltim® test report on demand	
			EC90/128 and EC2002/72		
◆ Recycling	100% recyclable				



For the calculation of rectangular tanks, we refer to our software program PanTanC 2.0, which is made based on DVS 2205-5.

Paneltim NV always advices to use 50/50mm panels for the creation of rectangular tanks for liquids.



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