

Technical data sheet

Paneltim® MultiPowered Panels 50/50 in PP RAL 7032 UV



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General Material Properties *

◆ General properties	Value	Units	Test Method	Remarks
Type of material	PP Block Copolymer			
Density	+/- 0.905	g/cm ³	ISO 1183	
Melt Flow Index	6 +/- 2	g/10min	ISO 1133	at 230°C/2,16 kg
Stress at Yield	>= 30	Mpa	ISO 527	
Strain at Yield	>= 10	%	ISO 527	
Flex E-Modulus	1200 - 1550	Mpa	ISO 178	
Notched Izod	>= 10	kJ/m ²	ISO 180	at 23°C
	>= 5	kJ/m ²	ISO 180	at 0°C
	>= 3	kJ/m ²	ISO 180	at -20°C
Hardness	67 +/- 2	Shore D	ISO 868	
Cristaline Melt Point	163 +/- 3	°C	DSC	
Caloric value	+/- 45	Mjoule/kg		
Water absorption	< 0,05	%		

◆ **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	2600 x 1000 (+/- 0,4%)	mm	measured at 20 °C	
Thickness	50 (+/- 3%)	mm	measured at 20 °C	
◆ Weight	Value	Units	Test method	Remarks
	12,7 (+/- 4%)	kg/m ²	measured at 20 °C	
◆ Mechanical	Value	Units	Test method	Remarks
Equivalent E-Modulus	780	Mpa		Paneltim® test report on demand
Impact resistance	>= 1,5	m	Dart drop test 2,7 kg impactradius 1,5"	
◆ Electrical properties	Value	Units	Test method	Remarks
Surface resistance	>= 10 exp14	Ohm	DIN VDE 0303	Paneltim® test report on demand

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◆ Thermal properties		Value	Units	Test method	Remarks
Thermal conductivity		1,7	W/m ² °K		Paneltim® test report on demand
Linear thermal expansion		1,2 - 1,5mm/m/10°C	°C	Paneltim®	In an area range from -20°C to +80°C
Utilisation range					
Permanent	Air	-20°C tot +80°	°C		Related to load and environment conditions
Permanent	Water	0°C tot +40°C	°C		Others on demand
Shortly	Steam	0°C tot +100°C	°C		For cleaning
Euro fire resistance		E		EN-ISO 11925-2	Paneltim® test report on demand
◆ UV and Weathering Resistances		Value	Units	Test method	Remarks
UV resistant panels		10	year	Q-Sun	In mid european climate
					50 % of mechanical characteristics maintain
					KLangley <= 100
◆ Sound insulation		Value	Units	Test method	Remarks
		RW 25-26	dB	EN ISO 717-1	Paneltim® test report on demand
◆ Welding guidelines parameters *		Value	Units	Test method	Remarks
Butwelding	Melting	+/- 30	sec	Paneltim®	0,12 N/m ²
	Heating	+/- 2	sec		0,05 N/m ²
	Welding	+/- 30	sec		0,12 N/m ²
Thickness panel		8-18	mm		
Temperature		198	°C		
Extrusion welding	Bulk T°	223	°C	SKZ	Paneltim® test report on demand
	Hotgas T°	265-270	°C		
	Hotgas flow rate	300	l/min		
	Shoe width	14	mm		
Shoe length		40	mm		
Shoe A-Value		6-8	mm		
Hot air welding	T°	265-270	°C	Paneltim®	
* Values can vary depending the type of welding machine.					
◆ Horizontal charge		Value	Units	Test method	Remarks
Point load		3,60	kN/m ²		Paneltim® test report on demand
Equally distributed load		5,75	kN/m ²		For 1000 mm span, with maximum 1% deflection
					For 1000 mm span, with maximum 1% deflection
◆ 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.



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