

ForTii® Ace WX51-FC

PPA-GF30

30% Glass Reinforced, PA4T, Food Contact Quality, Drinking Water Grade

ForTii® Ace WX51-FC has best in class high temperature and wet mechanical performance, weldline strength and weldline strength retention in hot water and steam. For detailed statements and information regarding food contact and water contact approvals please contact your DSM representative.

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage (parallel)	0.43 / *	%	ISO 294-4
Molding shrinkage (normal)	1.2 / *	%	ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	11000 / 11000	MPa	ISO 527-1/-2
Tensile modulus (-40°C)	11800 / -	MPa	ISO 527-1/-2
Tensile modulus (40°C)	10500 / -	MPa	ISO 527-1/-2
Tensile modulus (80°C)	10300 / 9500	MPa	ISO 527-1/-2
Tensile modulus (100°C)	10200 / -	MPa	ISO 527-1/-2
Tensile modulus (120°C)	9600 / 5500	MPa	ISO 527-1/-2
Tensile modulus (150°C)	7500	MPa	ISO 527-1/-2
Tensile modulus (160°C)	6300	MPa	ISO 527-1/-2
Tensile modulus (180°C)	4900	MPa	ISO 527-1/-2
Tensile modulus (200°C)	4400	MPa	ISO 527-1/-2
Stress at break	210 / 190	MPa	ISO 527-1/-2
Stress at break (-40°C)	240 / -	MPa	ISO 527-1/-2
Stress at break (40°C)	200 / -	MPa	ISO 527-1/-2
Stress at break (80°C)	180 / 120	MPa	ISO 527-1/-2
Stress at break (100°C)	170 / -	MPa	ISO 527-1/-2
Stress at break (120°C)	150 / 80	MPa	ISO 527-1/-2



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Properties	Typical Data	Unit	Test Method
Stress at break (150°C)	115	MPa	ISO 527-1/-2
Stress at break (160°C)	100	MPa	ISO 527-1/-2
Stress at break (200°C)	75	MPa	ISO 527-1/-2
Strain at break	2.6 / 2.5	%	ISO 527-1/-2
Strain at break (-40°C)	2.7 / -	%	ISO 527-1/-2
Strain at break (40°C)	2.5 / -	%	ISO 527-1/-2
Strain at break (80°C)	2.7 / 2.8	%	ISO 527-1/-2
Strain at break (100°C)	2.7 / -	%	ISO 527-1/-2
Strain at break (120°C)	3 / 5	%	ISO 527-1/-2
Strain at break (150°C)	3.8	%	ISO 527-1/-2
Strain at break (160°C)	5	%	ISO 527-1/-2
Strain at break (180°C)	5	%	ISO 527-1/-2
Strain at break (200°C)	5	%	ISO 527-1/-2
Flexural modulus	10500 / 10500	MPa	ISO 178
Flexural strength	300 / 275	MPa	ISO 178
Flexural modulus (120°C)	9500	MPa	ISO 178
Flexural modulus (160°C)	5700	MPa	ISO 178
Flexural modulus (180°C)	4700	MPa	ISO 178
Flexural modulus (200°C)	4300	MPa	ISO 178
Charpy impact strength (+23°C)	70 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	65 / 55	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	10 / 8	kJ/m ²	ISO 179/1eA

Thermal properties

dry / cond

Melting temperature (10°C/min)	340 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	320 / *	°C	ISO 75-1/-2
Burning Behav. at 3.0 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-



Property Data (Provisional)

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Properties	Typical Data	Unit	Test Method
Electrical properties			
Volume resistivity	dry / cond		
	>1E13 / >1E13	Ohm*m	IEC 62631-3-1
Electric strength	45 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112
Other properties			
Humidity absorption	dry / cond		
	2 / *	%	Sim. to ISO 62
Density	1460 / -	kg/m ³	ISO 1183

