

# ForTii® Ace U53

## PPA-I

Unreinforced, PA4T, Impact Modified, Injection Molding

Print Date: 2019-09-28

Properties	Typical Data	Unit	Test Method
<b>Mechanical properties</b>	<b>dry / cond</b>		
Tensile modulus	2000 / 2000	MPa	ISO 527-1/-2
Tensile modulus (100°C)	1700 / -	MPa	ISO 527-1/-2
Tensile modulus (120°C)	1600 / -	MPa	ISO 527-1/-2
Tensile modulus (140°C)	900	MPa	ISO 527-1/-2
Tensile modulus (160°C)	300	MPa	ISO 527-1/-2
Tensile modulus (200°C)	270	MPa	ISO 527-1/-2
Yield stress	60 / 60	MPa	ISO 527-1/-2
Yield stress (120°C)	32	MPa	ISO 527-1/-2
Stress at break	60 / 60	MPa	ISO 527-1/-2
Stress at break (100°C)	36 / -	MPa	ISO 527-1/-2
Stress at break (120°C)	32 / -	MPa	ISO 527-1/-2
Stress at break (140°C)	24	MPa	ISO 527-1/-2
Stress at break (160°C)	21	MPa	ISO 527-1/-2
Stress at break (200°C)	14	MPa	ISO 527-1/-2
Strain at break	20 / 20	%	ISO 527-1/-2
Strain at break (100°C)	20 / -	%	ISO 527-1/-2
Strain at break (120°C)	20 / -	%	ISO 527-1/-2
Strain at break (140°C)	38	%	ISO 527-1/-2
Strain at break (160°C)	84	%	ISO 527-1/-2
Strain at break (200°C)	92	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	N / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	40 / -	kJ/m <sup>2</sup>	ISO 179/1eA

Property Data (Provisional)

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Properties	Typical Data	Unit	Test Method
Charpy notched impact strength (-30°C)	30 / -	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Thermal properties</b>		<b>dry / cond</b>	
Melting temperature (10°C/min)	335 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	135 / *	°C	ISO 75-1/-2
<b>Other properties</b>		<b>dry / cond</b>	
Density	1110 / -	kg/m <sup>3</sup>	ISO 1183