General properties

Reusability	60%

	Value	Method
Part density (g/cm³)	1.13	ASTM D792
Melting temperature (°C)	187	DSC analysis
Powder melting point (DSC) (°C / °F)	187 / 369	ASTM D3418
Particle size (µm)	55	ASTM D3451
Bulk density of powder (g/cm³ / lb/in³)	0.47 / 0.017	ASTM D1895

Mechanical properties[8]

	Axis	Average value	Method
Tensile Strength (MPa)[i]	XY	46	ASTM D638
	Z	46	
Tensile Modulus (MPa)[ii]	XY	2580	ASTM D638
	Z	2540	
Elongation at Yield (%)	XY	3.8	ASTM D638
	Z	3.6	
Elongation at Break (%)[iii]	XY	4.7	ASTM D638
	Z	4	
Izod Impact Notched (kJ/m²)[iv]	XY	2.8	ASTM D256
	Z	2.7	
Heat Deflection Temperature 0.45 MPa (°C)	XY	172	ASTM D648
	Z		
Heat Deflection Temperature 1.82 MPa (°C)	XY	97	ASTM D648
	Z		
Ball pressure (°C)	XYZ	165	IEC 60695

i. 95% of measured tensiles show Tensile Strength above 38 Mpa.
ii. 95% of measured tensiles show Modulus values between 2250 to 2850 MPa.
iii. 95% of measured tensiles show Elongation at Break in XY-direction above 3.5% and Elongation at Break in Z-direction above 3%.
iv. Using the Izod test method A with notched at 3.2 mm specimen according to the ASTM D256 standard.

Electrical properties

	Orientation	Value	Method
Comparative Tracking Index (CTI) (V)	XY	408	ASTM D3638
	Z	423	
Dielectric Strength (Conditioning 48 h / 23 °C / 50% RH) (kV/mm)	XY	7.6	ASTM D149
	Z	6.7	
Dielectric Strength (Conditioning 96 h / 35 °C / 90% RH) (kV/mm)	XY	2.5	ASTM D149
	Z	1.9	
Volume Resistivity at 23 °C / 50% RH (Ω•cm)	XY	4.96E+13	ASTM D257
	Z	5.71E+13	
Surface Resistivity at 23 °C / 50% RH (Ω)	XY	9.74E+14	ASTM D257
	Z	1.03E+15	

Flammability properties

		UL 94 (Blue Card available)			High-Current Arc Ignition (HAI)			Hot Wire Ignition (HWI)		
Thick-ness	Orienta-tion	Value	Unit	Method	Value	Unit	Method	Value	Unit	Method
1 mm	XYZ	HB	Pass	UL 94	PLC 0	Pass	UL 746A	PLC 4	Pass	UL 746A
1.8 mm	XYZ	V2	Pass		PLC 0	Pass		PLC 2	Pass	
2.5 mm	XYZ	V0	Pass		PLC 0	Pass		PLC 1	Pass	

		Glow Wire Flammability Index (GWFI)			Glow Wire Ignition Test (GWIT)		
Thickness	Orientation	Value	Unit	Method	Value	Unit	Method
Please reach out to an HP representative for test results.							

Railway	Thickness	Value	Unit	Method
R22	1.4 mm	HL2	Pass	EN 45545-2
	1.4 mm to 10 mm	HL1		
R23	1.4 mm to 10 mm	HL2	Pass	
R24	1.4 mm to 10 mm	HL2	Pass	