Material Data Sheet

MDS-PA6NUVHS Ver 6

Polyamide 6 (Nylon) – Nucleated, heat and UV stabilized
Used on: Harnessflex nylon conduits.

Test	Test Method	Value	Unit
General			
Density	ISO 1183	1130	kg/m^3
Melting Point	ISO 11357	220	°C
Mechanical			
Yield Stress	ISO 527-1/-2	85	MPa
Yield Strain	ISO 527-1/-2	4	%
Nominal Strain at break	ISO 527-1/-2	45	%
Tensile Modulus	ISO 527-1/-2	3150	MPa
Charpy impact strength (+23°C)	ISO 179/1eU	DNB	kJ/m^2
Charpy notched impact strength (+23°C)	ISO 179/1eA	5.5	kJ/m^2
Thermal			
Temp of deflection under load (1.80 Mpa)	ISO 75-1/-2	60	°C
Temp of deflection under load (0.45 Mpa)	ISO 75-1/-2	170	°C
Flammability			
Flammability (@1.5mm)	FMVSS302	0	mm/min
Flammability (@1.5mm)	IEC60695-11-10	HB	N/A
Electrical			
Dielectric strength	IEC 60243-1	25	kV/mm
Volume Resistivity	IEC 60093	1^{13}	Ω*m
Comparative Tracking Index	IEC 60112	600	V
Relative permittivity (100Hz)	IEC60250	3.4	-
Relative permittivity (1MHz)	IEC60250	3.1	-
Dissipation factor (100Hz)	IEC60250	65	E-4
Dissipation factor (1MHz)	IEC60250	165	E-4

Notes:
DNB = Did not break
All tests undertaken at 23°C where applicable

Chemical resistance:

PA6 Harnessflex conduits are resistant to all under bonnet oils, greases, fuels, cleaning fluids and synthetic fluids. Like all Nylons they are resistant to weak acids but not resistant to strong or oxidizing acids.

Product Temperature Range @1.5mm material thickness:

Minimum Static 30,000 hours -40°C

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Minimum dynamic 5000 operations -15°C
Maximum static long term 30,000 hours +120°C
Maximum short term 3,000 hours +150°C

Information Source - Polymer supplier published information.
The data given is typical data and does not represent minimum values.
Variations within normal tolerances are possible for different colours
MDS validity: 31st July 2023

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