Nylon 6 Sheet & Rod - Extruded

Natural / Black

Technical Datasheet

Physical Properties	Test	Unit	Result
1. Specific gravity	ISO 1183	g/cm³	1.14
2. Water absorption	ISO 62	%	9
3. Maximum service temp. Upper temp limit - Short Term (no stronger mechanical stress involved)	-	°C	160
Long Term	-	°C	85
5. Lower temp limit	-	°C	-40

Mechanical Properties	Test	Unit	Result
1. Tensile stress at yield	ISO 527-2	MPa	76
2. Elongation at yield	ISO 527-2	%	-
3. Tensile strength at break	ISO 527-2	MPa	-
4. Elongation at break	ISO 527-2	%	>50
5. Impact strength	ISO 179 / 1eU	kJ/m²	no break
6. Notch impact strength	ISO 179 / 1eA	kJ/m²	5.5
7. Ball indentation / Rockwell hardness	ISO 2039-1 / -2	MPa	150 / M85
8. Shore-D	-	-	-
9. Flexural modulus of elasticity	ISO 178	MPa	-
10. Tensile modulus of elasticity	ISO 527	MPa	3250

Thermal Properties	Test Method	Unit	Result
1. Vicat-softening point VST/B/50	ISO 306	°C	-
2. Heat deflection temperature HDT/A	ISO 75-2	°C	-
3. Coefficient of linear thermal expansion	ISO 11359	$k^{-1}*10^{-4}$	0.9
4. Thermal conductivity at 23 °C	DIN 52612	W/(m*K)	0.28

Electrical Properties	Test Method	Unit	Result
1. Volume resistivity	VDE 0303	Ω x m	-
2. Surface resistivity	IEC 6093	Ω	10^{13}
3. Dielectric constant at 1MHz	IEC 60250	-	3.3
4. Dielectric dissipation factor at 1 MHz	IEC 60250	10^6 Hz	0.021
5. Dielectric strength	IEC 60243-1	kV/mm	25
6. Comparative tracking index (CTI)	IEC 60112	-	600

Additional Data	Test Method	Unit	Result
1. Bondability	-	-	-
2. Food compliance	FDA	-	+
3. Flammability	UL 94	-	HB

Key:

Yes	Limited	No or no data
+	o	-

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Chemical Datasheet

Agent	Conc %	Working Temp	
		20°C	60°C
Acetic Acid	100	-	-
Acetone	100	o	o
Ammonia	Conc.	+/o	-
Ammonium chloride		+	
Amyl Alcohol		+	
Benzene		+	+
Bleaching Solution	12,5 Cl	-	-
Boric Acid	100	+/o	o
Brake Fluid		+	+
Butyl Acetate		+	
Calcium Chloride		+	+
Carbon disulphide	100	+	-
Carbon Tetrachloride		+	
Chlorine, gas	100	-	
Chlorobenzene	100	+	
Chloroform		-	-
Citric Acid	10	+	
Cresol		-	-
Cyclohexanone	100	+	
Cyclohexene	100	+	+
Diesel Fuel		+	+
Ethyl acetate	100	+	
Ethyl alcohol	96	+	+
Ethylene Chloride	100	+	
Formic Acid	10	-	-
Frost protection agent		+	+
Fuel, aromatic free		+	+
Glycerine	100	+	+
Glycol	100	+	o
Heating oil		+	+
Heptane	100	-	-
Hydrochloric acid	10	-	-
Hydrochloric acid	Conc.	-	-

Agent	Conc %	Working Temp	
Hydrofloric acid	40	-	-
Hydrogen peroxide	10	+/o	-
Hydrogen Sulphide		+	
Isopropyl Alcohol	100	+	+
Mercurochrome		-	-
Methyl alcohol	100	+	
Methyl ethyl ketone	100	+	
Methylene chloride	100	o	o
Nitric acid	50	-	-
Nitrobenzine		o	
Oxalic Acid		o	
Ozone, gas	ca. 0,5 ppm	-	-
Paraffin Oil	100	+	+
Perchlorethylene		o	-
Petroleum	100	+	
Petroleum, aromatic free	100		
Phenol, aqu	ca.9	-	-
Phosphoric Acid	50	-	-
Potassium hydroxide liquor	50	o	+
Propyl alcohol			
Pyridine		+	o
Silicone oil		+	+
Sodium carbonate. aqu		+	+
Sodium chloride, aqu		+	+
Sodium Hydroxide liquor	15	+	
Sodium Hydroxide liquor	60	o	
Sodium hydrogen sulphite		+	
Sodium nitrate, aqu		+	
Sodium thiosulfate			
Sulphuric Acid	96	-	-
Tetrahydrofurance	100	+	
Toluene	100	+	+
Trichlorethylene	100	-	-
Xylene		-	-

Key:

Resistant	Partly Resistant	Non-Resistant
+	o	-

All The above information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.