(+) 18816996168



ISO 1043

ISO 11469

ISO 179/1eU

ISO 179/1eA

ISO 179/1eA

ISO 179/1eA

ISO 180/1A

ISO 180/1A

ISO 180/1U

ISO 2039-1

Zytel® BM70G20HSLX BK537

NYLON RESIN

Common features of Zytel® nylon resin include mechanical and physical properties such as high mechanical strength, excellent balance of stiffness and toughness, good high temperature performance, good electrical and flammability properties, good abrasion and chemical resistance. In addition, Zytel® nylon resins are available in different modified and reinforced grades to create a wide range of products with tailored properties for specific processes and end-uses. Zytel® nylon resin, including most flame retardant grades, offer the ability to be coloured.

The good melt stability of Zytel® nylon resin normally enables the recycling of properly handled production waste. If recycling is not possible, we recommend, as the preferred option, incineration with energy recovery (-31kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

Zytel® nylon resin typically is used in demanding applications in the automotive, furniture, domestic appliances, sporting goods and construction industry.

PA66-IGF20

ISO 16396-PA66-I,GF20,M1CGH,S14-060

kJ/m²

 kJ/m^2

kJ/m²

kJ/m²

kJ/m²

kJ/m²

kJ/m²

MPa

>PA66-IGF20<

Zytel® BM70G20HSLX BK537 is a 20% glass fibre reinforced polyamide 66 for blow moulding.

Product information

Resin Identification

Part Marking Code

ISO designation

· ·			
Rheological properties	dry/cond.		
Viscosity number	155 ^[1] /*	cm ³ /g	ISO 307, 1628
Moulding shrinkage, parallel	0.5/-	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.7/-	%	ISO 294-4, 2577
Melt viscosity, @ 1000 sec-1, 280°C	330/*	Pa.s	ISO 11443
[1]: Sulfuric acid 96%			
Typical mechanical properties	dry/cond.		
Tensile modulus	6500/4000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	120/75	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	4/13	%	ISO 527-1/-2
Flexural modulus	6000/3600 ^[A]	MPa	ISO 178
Flexural strength	160/- ^[DS]	MPa	ISO 178
Shear Modulus	1400/-	MPa	ISO 6721
Tensile creep modulus, 1h	*/3900	MPa	ISO 899-1
Tensile creep modulus, 1000h	*/3200	MPa	ISO 899-1
Charpy impact strength, 23°C	80/80	kJ/m²	ISO 179/1eU

15/16

8/6

14/16

8.0/6.0

0.35/0.36

73/-

225/-

7.5/-

40/-

Poisson's ratio

[A]: Assessed

[DS]: Derived from similar grade

Izod impact strength, 23°C

Charpy impact strength, -30°C

Charpy notched impact strength, 23°C

Charpy notched impact strength, -30°C

Charpy notched impact strength, -40°C

Izod notched impact strength, 23°C

Izod notched impact strength, -30°C

Ball indentation hardness, H 961/30

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NYLON RESIN

Thermal properties Melting temperature, 10°C/min Glass transition temperature, 10°C/min Temperature of deflection under load, 1.8 MPa Temperature of deflection under load, 0.45 MPa Thermal conductivity of melt Specific heat capacity of melt	dry/cond. 260 / * 65 / 40 239 / * 257 / * 0.2 2000	°C °C °C °C W/(m K) J/(kg K)	ISO 11357-1/-3 ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2 ISO 22007-2 ISO 22007-4
Flammability			
FMVSS Class	SE		ISO 3795 (FMVSS 302)
Physical/Other properties	dry/cond.		
Humidity absorption, 2mm Water absorption, 2mm Density Density of melt	1.6/* 5.2/* 1250/- 1070	% % kg/m³ kg/m³	Sim. to ISO 62 Sim. to ISO 62 ISO 1183
Injection			
Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Optimum Min. melt temperature Max. melt temperature Screw tangential speed Mold Temperature Optimum Min. mould temperature Max. mould temperature Hold pressure range Hold pressure time Ejection temperature	2 - 4 ≤0.2 290 285 305 ≤0.2 90 65 150 50 - 100	°C h % °C °C c m/s °C °C	
Extrusion			
Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Range	80 4 - 6 ≤0.06 275 - 290	%	
Blow Molding			
Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Optimum Melt Temperature Range Swell ratio	yes 100 - 115 4 - 6 ≤0.03 285 285 - 305	°C h % °C °C	

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Mold Temperature Optimum 110 °C Mold Temperature Range 80 - 120 °C

Characteristics

Processing Injection Moulding, Blow Moulding

Delivery form Pellets

Special characteristics Heat stabilised or stable to heat

Automotive

OEM STANDARD ADDITIONAL INFORMATION

Ford WSS-M4D1009-A1

General Motors Black; Part Specific Approval, Please Contact

Your CE Representative For More Details.

Renault-Nissan UB02b, No Spec, Special Part Approval, See

Your CE Account Manager.

Stellantis B62 0300 / 61/218M-/220E-/H115 + S62 0001 CPN4973, 01994_15_00258

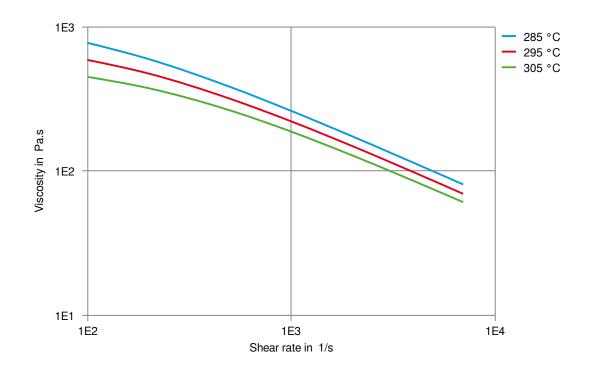
Stellantis - Chrysler MS:50017 / CPN-4973 Black

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Viscosity-shear rate

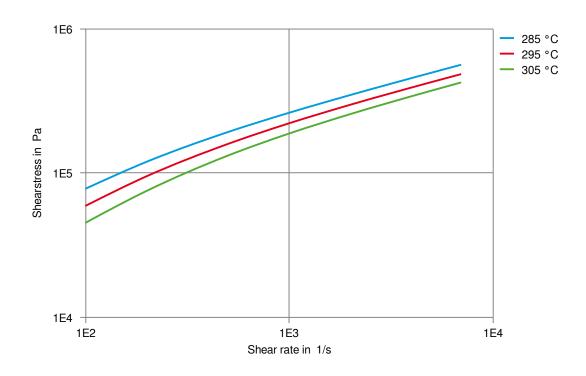


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Shearstress-shear rate

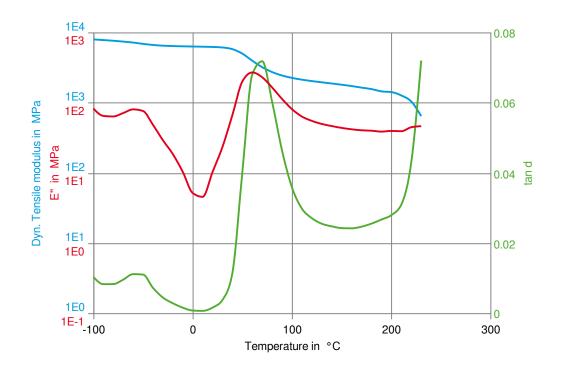


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Dynamic Tensile modulus-temperature (dry)

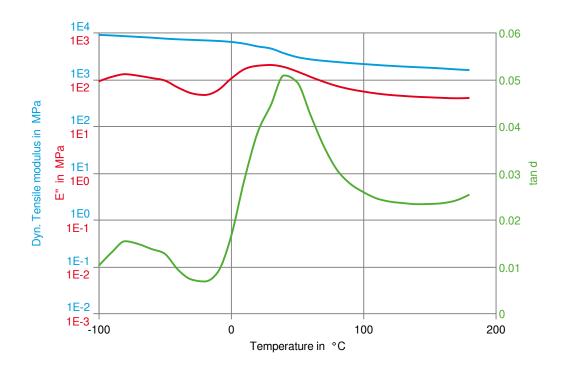


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Dynamic Tensile modulus-temperature (cond.)

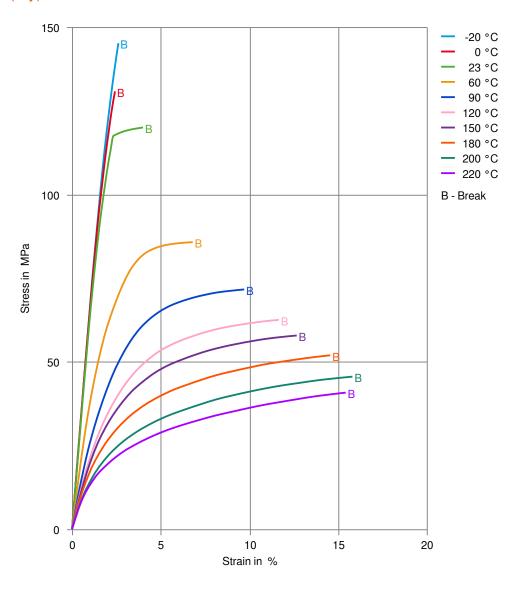


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Stress-strain (dry)

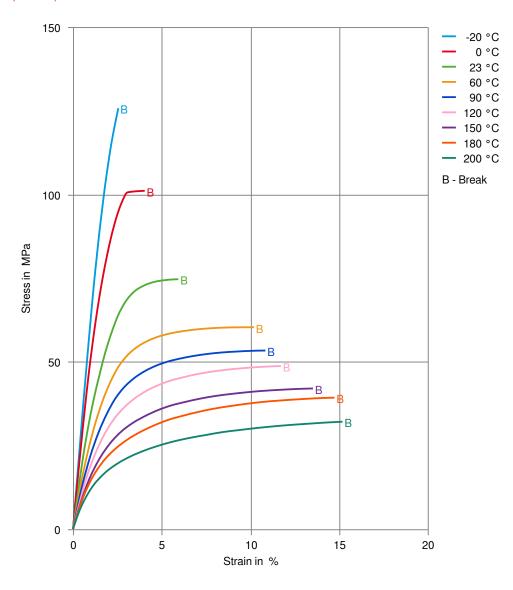


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Stress-strain (cond.)

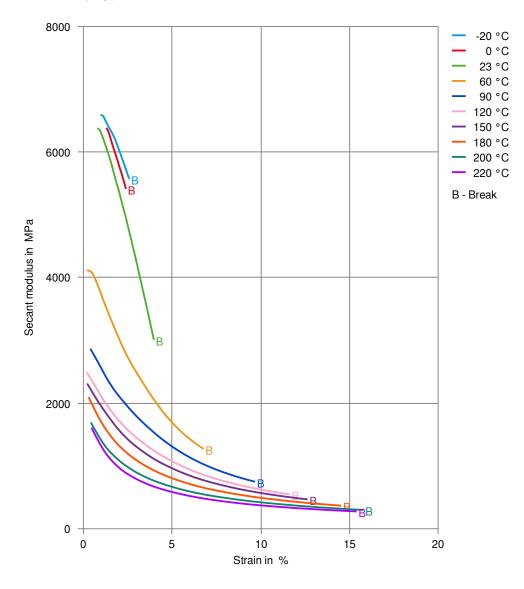


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Secant modulus-strain (dry)

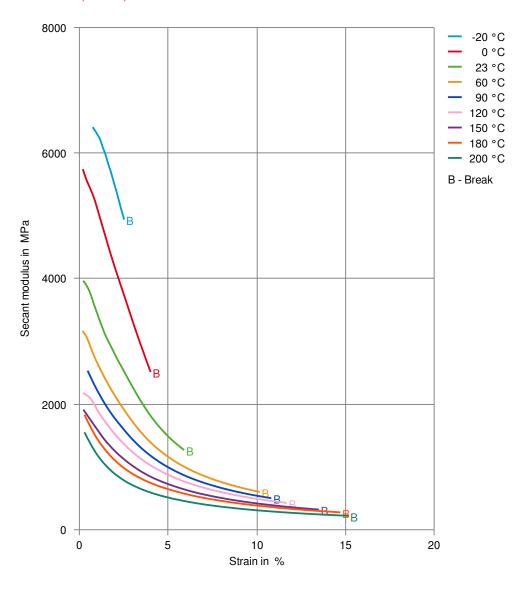


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Secant modulus-strain (cond.)

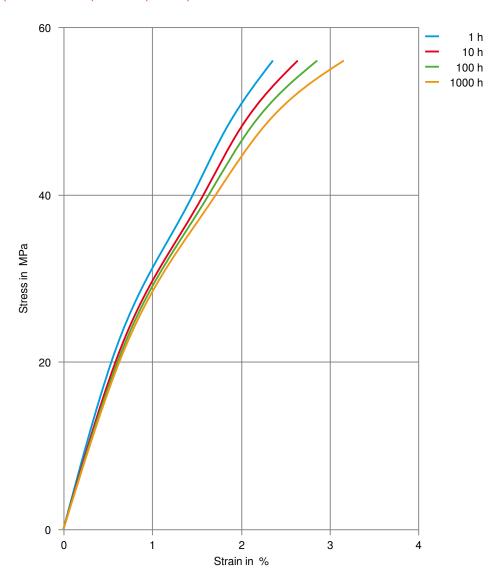


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Stress-strain (isochronous) 23°C (cond.)

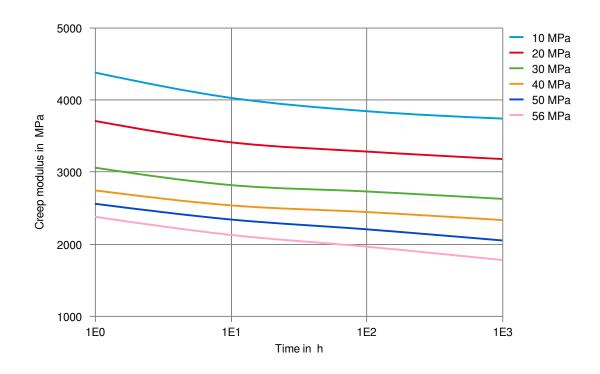


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Creep modulus-time 23°C (cond.)

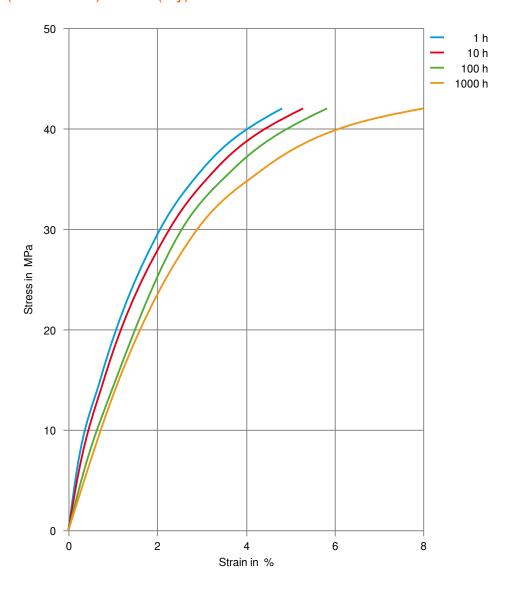


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Stress-strain (isochronous) 150°C (dry)

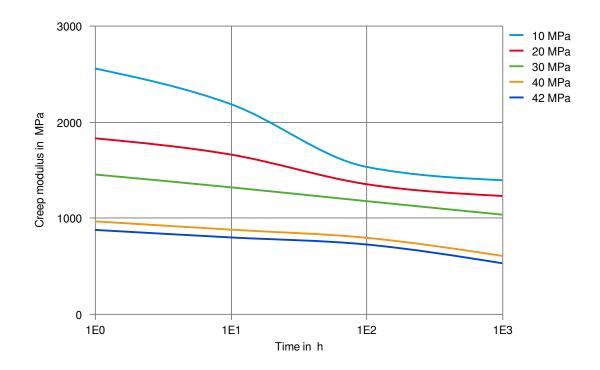


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Creep modulus-time 150°C (dry)

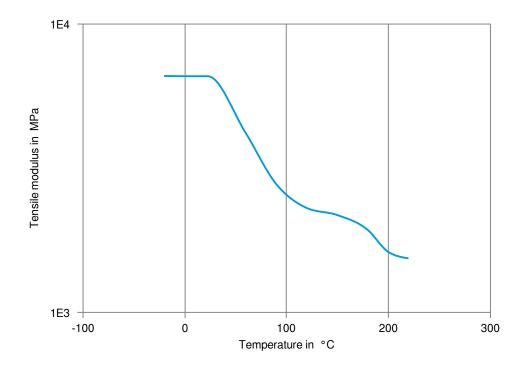


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Tensile modulus-temperature (dry)

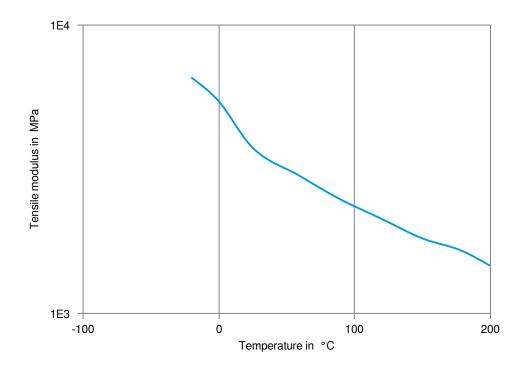


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Tensile modulus-temperature (cond.)



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Zytel® BM70G20HSLX BK537

NYLON RESIN

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass), 23°C
- ✓ Citric Acid solution (10% by mass), 23°C
- ✓ Lactic Acid (10% by mass), 23°C
- X Hydrochloric Acid (36% by mass), 23°C
- X Nitric Acid (40% by mass), 23°C
- X Sulfuric Acid (38% by mass), 23°C
- X Sulfuric Acid (5% by mass), 23°C
- X Chromic Acid solution (40% by mass), 23°C

Bases

- X Sodium Hydroxide solution (35% by mass), 23°C
- ✓ Sodium Hydroxide solution (1% by mass), 23°C
- ✓ Ammonium Hydroxide solution (10% by mass), 23°C

Alcohols

- ✓ Isopropyl alcohol, 23°C
- ✓ Methanol, 23°C
- ✓ Ethanol, 23°C

Hydrocarbons

- ✓ n-Hexane, 23°C
- ✓ Toluene, 23°C
- ✓ iso-Octane, 23°C

Ketones

✓ Acetone, 23°C

Ethers

✓ Diethyl ether, 23°C

Mineral oils

- ✓ SAE 10W40 multigrade motor oil, 23°C
- ✓ SAE 10W40 multigrade motor oil, 130°C
- ✓ SAE 80/90 hypoid-gear oil, 130°C
- ✓ Insulating Oil, 23°C

Standard Fuels

- ✓ ISO 1817 Liquid 1 E5, 60°C
- ✓ ISO 1817 Liquid 2 M15E4, 60°C
- ✓ ISO 1817 Liquid 3 M3E7, 60°C
- ✓ ISO 1817 Liquid 4 M15, 60°C
- ✓ Standard fuel without alcohol (pref. ISO 1817 Liquid C), 23°C
- ✓ Standard fuel with alcohol (pref. ISO 1817 Liquid 4), 23°C
- ✓ Diesel fuel (pref. ISO 1817 Liquid F), 23°C
- ✓ Diesel fuel (pref. ISO 1817 Liquid F), 90°C
- ✓ Diesel fuel (pref. ISO 1817 Liquid F), >90°C

Salt solutions

- ✓ Sodium Chloride solution (10% by mass), 23°C
- ✗ Sodium Hypochlorite solution (10% by mass), 23°C

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NYLON RESIN

- ✓ Sodium Carbonate solution (20% by mass), 23°C
- ✓ Sodium Carbonate solution (2% by mass), 23°C
- X Zinc Chloride solution (50% by mass), 23°C

Other

- ✓ Ethyl Acetate, 23°C
- X Hydrogen peroxide, 23°C
- ✓ DOT No. 4 Brake fluid, 130°C
- ✓ Ethylene Glycol (50% by mass) in water, 108°C
- √ 1% nonylphenoxy-polyethyleneoxy ethanol in water, 23°C
- ✓ 50% Oleic acid + 50% Olive Oil, 23°C
- ✓ Water. 23°C
- ✓ Water, 90°C
- ★ Phenol solution (5% by mass), 23°C

Symbols used:

✓ possibly resistant

Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).

x not recommended - see explanation

Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

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Revised: 2025-05-01 Source: Celanese Materials Database

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