



ISO 1043

Crastin® LW9030 BK851

THERMOPLASTIC POLYESTER RESIN

Common features of Crastin® thermoplastic polyester resin include mechanical and physical properties such as stiffness and toughness, heat resistance, friction and wear resistance, excellent surface finishes and good colourability. Crastin® thermoplastic polyester resin has excellent electrical insulation characteristics and high arc-resistant grades are available. Many flame retardant grades have UL recognition (class V-0). Crastin® thermoplastic polyester resin typically has high chemical and heat ageing resistance.

The good melt stability of Crastin® thermoplastic polyester 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 (-24 kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

Crastin® thermoplastic polyester resin typically is used in demanding applications in the electronics, electrical, automotive, mechanical engineering, chemical, domestic appliances and sporting goods industry.

Crastin® LW9030 BK851 is a 30% glass fiber reinforced polybutylene terephthalate blend for injection moulding. It has improved surface aesthetics, excellent dimensional stability and low warpage characteristics.

PBT+ASA-GF30

Product information Resin Identification

Part Marking Code	>PBT+ASA-GF30)<	ISO 11469
Rheological properties			
Melt volume-flow rate	10	cm ³ /10min	ISO 1133
Temperature	250	°C	
Load	5	kg	
Melt mass-flow rate	4	g/10min	ISO 1133
Melt mass-flow rate, Temperature	250	°C	
Melt mass-flow rate, Load	2.16	kg	
Moulding shrinkage, parallel	0.2	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.7	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile modulus	9500	MPa	ISO 527-1/-2
Toncile stress at break Emm/min	120	MDa	ISO 527 1/2

Tensile modulus	9500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	130	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.2	%	ISO 527-1/-2
Flexural modulus	8500	MPa	ISO 178
Flexural strength	180	MPa	ISO 178
Charpy impact strength, 23°C	50	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	45	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	9	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	7	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	7	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C	7.0	kJ/m²	ISO 180/1A
Izod impact strength, 23°C	45	kJ/m²	ISO 180/1U
Izod impact strength, -30°C	50	kJ/m²	ISO 180/1U
Poisson's ratio	0.34		

Printed: 2025-05-30 Page: 1 of 7





THERMOPLASTIC POLYESTER RESIN

I hormal r	aroportion
Thermal p	JI ODEI HES

Melting temperature, 10°C/min	224	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	120	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	170	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	210	°C	ISO 75-1/-2
Thermal conductivity of melt	0.28	W/(m K)	ISO 22007-2
RTI, electrical, 0.75mm	130	°C	UL 746B
RTI, electrical, 1.5mm	130	°C	UL 746B
RTI, electrical, 3.0mm	130	°C	UL 746B
RTI, electrical, 6mm	130	°C	UL 746B
RTI, impact, 0.75mm	125	°C	UL 746B
RTI, impact, 1.5mm	125	°C	UL 746B
RTI, impact, 3.0mm	130	°C	UL 746B
RTI, impact, 6mm	130	°C	UL 746B
RTI, strength, 0.75mm	130	°C	UL 746B
RTI, strength, 1.5mm	130	°C	UL 746B
RTI, strength, 3.0mm	130	°C	UL 746B
RTI, strength, 6mm	130	°C	UL 746B

Flammability

· · · · · · · · · · · · · · · · · · ·		
Burning Behav. at 1.5mm nom. thickn.	HB class	IEC 60695-11-10
Thickness tested	1.5 mm	IEC 60695-11-10
UL recognition	yes	UL 94
Burning Behav. at thickness h	HB class	IEC 60695-11-10
Thickness tested	3 mm	IEC 60695-11-10
UL recognition	yes	UL 94
Oxygen index	20 %	ISO 4589-1/-2
Glow Wire Flammability Index, 3.0mm	750 °C	IEC 60695-2-12
Glow Wire Ignition Temperature, 3.0mm	775 °C	IEC 60695-2-13
FMVSS Class	В	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/mir	n ISO 3795 (FMVSS 302)

Electrical properties

Relative permittivity, 100Hz	3.9	IEC 62631-2-1
Relative permittivity, 1MHz	3.8	IEC 62631-2-1
Dissipation factor, 100Hz	24 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	168 E-4	IEC 62631-2-1
Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	1E14 Ohm	IEC 62631-3-2
Electric strength	34 kV/mm	IEC 60243-1
Comparative tracking index	400	IEC 60112

Physical/Other properties

Density 1440 kg/m³ ISO 1183

Printed: 2025-05-30 Page: 2 of 7





THERMOPLASTIC POLYESTER RESIN

Injection

Drying Recommended	yes	
Drying Temperature	120	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.04	%
Melt Temperature Optimum	250	°C
Min. melt temperature	240	°C
Max. melt temperature	260	°C
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	130	°C
Hold pressure range	≥60	MPa
Hold pressure time	3	s/mm
Back pressure	As low as	MPa
	possible	
Ejection temperature	183	°C

Characteristics

Processing Injection Moulding

Special characteristics Laser Weldable, Low Warpage

Automotive

OEM STANDARD ADDITIONAL INFORMATION

BMW GS93016-PBT+ASA-GF30

Ford WSK-M4D896-A1

Renault-Nissan EP22, No Spec, Special Part Approval, See

Your CE Account Manager.

Stellantis B62 0300 / 61/221E/215M/C1B Technical Black;01378_22_02006

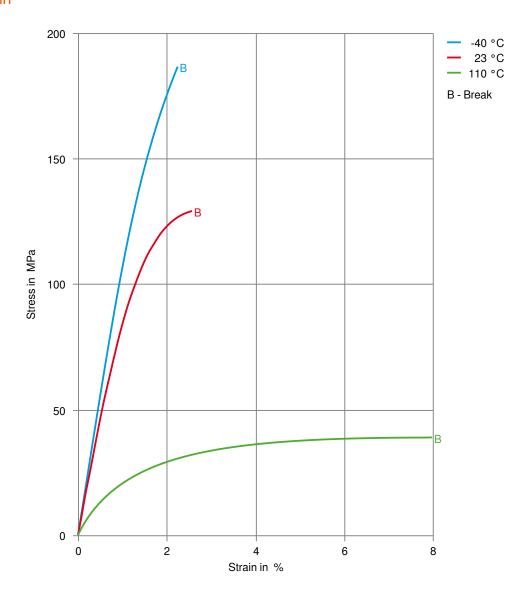
Printed: 2025-05-30 Page: 3 of 7





THERMOPLASTIC POLYESTER RESIN

Stress-strain



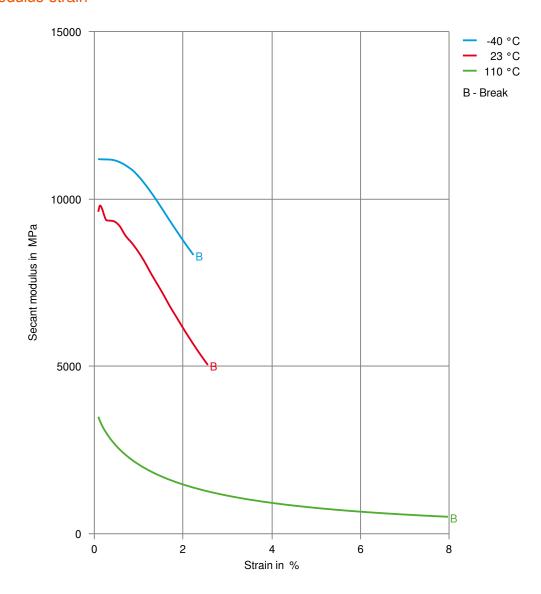
Printed: 2025-05-30 Page: 4 of 7





THERMOPLASTIC POLYESTER RESIN

Secant modulus-strain



Printed: 2025-05-30 Page: 5 of 7

(+) 18816996168 Ponciplastics.com



Crastin® LW9030 BK851

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

Standard Fuels

- X ISO 1817 Liquid 1 E5, 60°C
- X ISO 1817 Liquid 2 M15E4, 60°C
- X ISO 1817 Liquid 3 M3E7, 60°C
- X 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

Printed: 2025-05-30 Page: 6 of 7





THERMOPLASTIC POLYESTER RESIN

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

Other

- ✓ Ethyl Acetate, 23°C
- X Hydrogen peroxide, 23°C
- X 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
- X 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).

Printed: 2025-05-30 Page: 7 of 7

Revised: 2025-05-08 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users

© 2025 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC.