

CAMPUS® Automotive OEM Datasheet

Elastollan® 1185 A FHF - (TPU-ARET)

BASF Polyurethanes GmbH



Physical properties	I	M	E ¹	Value	Unit	Test Standard
Melt volume-flow rate, MVR	X	X	X	*	cm³/10min	ISO 1133
Temperature	X	X	X	*	°C	ISO 1133
Load	X	X	X	*	kg	ISO 1133
Viscosity number	X	X	X	*	cm³/g	ISO 307, 1157, 1628
Molding shrinkage, parallel	X	X	X	-	%	ISO 294-4, 2577
Molding shrinkage, normal	X	X	X	-	%	ISO 294-4, 2577
Humidity absorption	X	X	X	-	%	Sim. to ISO 62
Water absorption	X	X	X	-	%	Sim. to ISO 62
Density	X	X	X	1230	kg/m³	ISO 1183
Type and amount of reinforcement				-	-	ISO 3451-1
Mechanical properties	I	M	E ¹	Value	Unit	Test Standard
Tensile modulus	X	X	X	-	MPa	ISO 527-1/-2
Yield stress	X	X	X	*	MPa	ISO 527-1/-2
Stress at break	X	X	X	*	MPa	ISO 527-1/-2
Yield strain	X	X	X	*	%	ISO 527-1/-2
Strain at break	X	X	X	>50	%	ISO 527-1/-2
Charpy impact strength, +23°C	X	X	X	-	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	X	X	X	-	kJ/m²	ISO 179/1eA
Charpy impact strength, -30°C	X	X	X	-	kJ/m²	ISO 179/1eU
Charpy notched impact strength, -30°C	X	X	X	120	kJ/m²	ISO 179/1eA
Puncture test - ductile/brittle transition temperature	X		X	-	°C	ISO 6603-2
Thermal properties	I	M	E ¹	Value	Unit	Test Standard
Melting temperature, 10°C/min	X	X	X	*	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	X	X	X	-44	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	X	X	X	-	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	X	X	X	-	°C	ISO 75-1/-2
Temp. of deflection under load, 8.00 MPa	X	X	X	*	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	X	X	X	-	°C	ISO 306
Coeff. of linear therm. expansion -40°C to +100°C, parallel	X	X	X	-	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion -40°C to +100°C, normal	X	X	X	-	E-6/K	ISO 11359-1/-2
FMVSS	X			-	-	ISO 3795 (FMVSS 302)
Burning rate, FMVSS, Thickness 1 mm	X			-	mm/min	ISO 3795 (FMVSS 302)
Burning behavior at 1.5 mm nominal thickness		X	X	V-0	class	IEC 60695-11-10
Emission / Odor	I	M	E ¹	Value	Unit	Test Standard
Emission of organic compounds	X			-	µgC/g	VDA 277
Thermal desorption analysis of organic emissions	X			-	µg/g	VDA 278
Odor test	X	X ²		-	class	VDA 270
Long term / Aging	I	M	E ¹	Value	Unit	Test Standard
Thermal stability in air (Charpy at 50% decrease, 3000h)	X	X	X	-	°C	DIN/IEC 60216-1
Test specimen				-	-	-

LTHA-Charpy notched impact strength (23°C)

No data available

¹I=Interior parts, M=Parts in motor compartment, E=Exterior parts

²air-ducting parts with contact to interior

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LTHA-Stress at break

No data available

Weather stability, ISO 4892-2, Method A	I	M	E¹	Value	Unit	Test Standard
Weather stability delta l			X	-	-	DIN 53236
Weather stability delta a			X	-	-	DIN 53236
Weather stability delta b			X	-	-	DIN 53236
Weather stability delta E			X	-	-	DIN 53236
Weather stability grey scale			X	-	-	ISO 105-A02
Light stability, ISO 4892-2, Method B	I	M	E¹	Value	Unit	Test Standard
Light stability delta l	X	X	X	-	-	DIN 53236
Light stability delta a	X	X	X	-	-	DIN 53236
Light stability delta b	X	X	X	-	-	DIN 53236
Light stability delta E	X	X	X	-	-	DIN 53236
Light stability grey scale	X	X	X	-	-	ISO 105-A02

Aging in media

	LTHA-Charpy notched impact strength (23°C)			
Aging Time	0 h	168 h	480 h	1000 h
ISO 1817 Liquid 2, 60°C	-	-	-	-
Diesel EN 590, 100°C	-	-	-	-
Coolant Glysantin G48, 1:1 in water, 125°C	-	-	-	-
DOT No. 4 Brake fluid, 120°C	-	-	-	-
Motor oil OS206 304 Ref.Eng.Oil, ISP, 135°C	-	-	-	-
Automatic hypoid-gear oil Shell Donax TX, 135°C	-	-	-	-
Hydraulic oil Pentosin CHF 202, 125°C	-	-	-	-

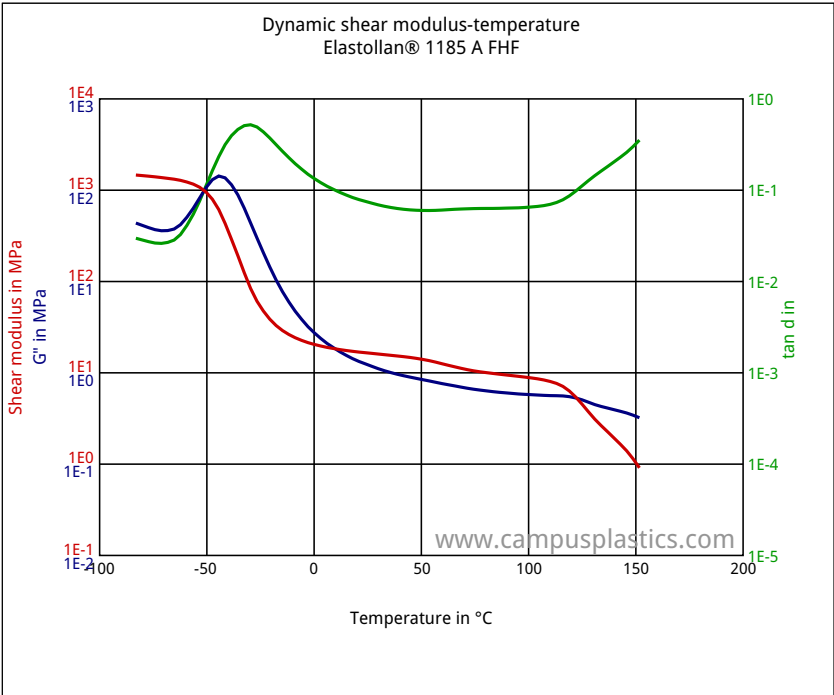
Dynamic mechanical analysis

Dynamic tensile modulus-temperature

No data available

¹I=Interior parts, M=Parts in motor compartment, E=Exterior parts

Dynamic shear modulus-temperature



CLTE

Thermal expansion
No data available

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