

MATERIAL DATA SHEET
LANSON POLYMERS COMPOUND REFERENCE N°: LP-DD-1040
POLYMER TYPE: PEEK / PTFE / Carbon Fibre / Graphite

DESCRIPTION: DD-1040 is a semi-crystalline very high performance engineering thermoplastic with optimised properties for demanding bearing and low friction applications.

COLOUR: Black

TYPICAL APPLICATION AREAS: Tribological applications for high strength. Excellent wear resistance, very low coefficient of friction, low coefficient of thermal expansion. Chemically resistant to aggressive environments.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TYPICAL VALUES	UNITS	TEST STANDARD
SPECIFIC GRAVITY	1.48	g/cm ³	ISO 1183
TENSILE STRENGTH	131	MPa	ISO 527
ELONGATION	1.5	%	ISO 527
COMPRESSIVE STRENGTH	150	MPa	ASTM D695
COEFFICIENT OF FRICTION	0.11		
MAX CONTINUOUS USE TEMPERATURE	250	°C	
COEFFICIENT OF THERMAL EXPANSION	2.2 x 10 ⁻⁵	°C	ASTM D696
LIMITING PV AT 20°C 30.5 M/Min	1084	MPa M/Min	

This table, mainly used for comparison purposes, is a valuable help in the choice of a material. The data listed here fall within the normal range of product properties. **However, they are not guaranteed and they should not be used to establish material specification limits nor used alone as the basis of design.**

LOW TEMPERATURE DATA

PROPERTY	TEMPERATURE	UNITS	VALUES	UNITS
FLEXURAL MODULUS	23	°C	8.22	GPa
	-20	°C	8.31	GPa
	-60	°C	8.27	GPa
FLEXURAL STRENGTH	23	°C	196.2	MPa
	-20	°C	220.4	MPa
	-60	°C	241.3	MPa
TENSILE BREAK	23	°C	131.8	MPa
	-20	°C	146.7	MPa
	-60	°C	170.6	MPa
TENSILE ELONGATION	23	°C	2.55	%
	-20	°C	3.51	%
	-60	°C	3.68	%

Page 1 of 2 Doc Ref: 251037 Rev 2.0

SPECIAL NOTE: This information is to the best of our knowledge accurate and reliable. However, Lanson Polymers make no warranty, expressed or implied that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use, especially in applications where their failure may result in injury and/or damage.

FEATURES:

Very high thermal mechanical bearing strength

Excellent low friction and sliding properties even without lubrication

Excellent creep resistance

Excellent radiation resistance

High hardness and rigidity

Good chemical resistance

High maximum use temperature

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