

PEEK SL

TECHNICAL DATA SHEET

FULL NAME: POLYETHER ETHER KETONE FILLED SOLID LUBRICANTS (CARBON FIBRES, PTFE, GRAPHITE)

MECHANICAL PROPERTIES	TEST METHOD	UNIT	PARAMETER	GUIDELINE VALUES
TENSILE STRENGTH	DIN EN ISO 527-2	MPA	50 MM/MIN	84
MODULUS OF ELASTICITY (TENSILE TEST) ⁽¹⁾	DIN EN ISO 527-2	MPA	1 MM/MIN	5500
TENSILE STRENGTH AT YIELD	DIN EN ISO 527-2	MPA	50 MM/MIN	84
ELONGATION AT YIELD	DIN EN ISO 527-2	%	50 MM / MIN	3
ELONGATION AT BREAK	DIN EN ISO 527-2	%	50 MM / MIN	3
FLEXURAL STRENGTH ⁽²⁾	DIN EN ISO 178	MPA	2 MM / MIN, 10 N	142
MODULUS OF ELASTICITY (FLEXURAL TEST)	DIN EN ISO 178	MPA	2 MM / MIN, 10 N	6000
COMPRESSION STRENGTH ⁽³⁾	EN ISO 604	MPA	1% / 2% / 5% 5 MM/MIN, 10 N	22/43/102
COMPRESSION MODULUS ⁽⁴⁾	EN ISO 604	MPA	5 MM/MIN, 10 N	4000
IMPACT STRENGTH (CHARPY) ⁽⁵⁾	DIN EN ISO 179-1EU	KJ/M2	MAX 7,5 J	28
BALL INDENTATION HARDNESS ⁽⁶⁾	ISO 2039-1	MPA	-	250

THERMAL PROPERTIES				
GLASS TRANSITION TEMPERATURE ⁽⁷⁾	DIN EN ISO 11357	°C	-	146
MELTING TEMPERATURE	DIN 53765	°C	-	341
SERVICE TEMPERATURE ⁽⁸⁾	-	°C	SHORT TERM	300
SERVICE TEMPERATURE	-	°C	LONG TERM	260
THERMAL EXPANSION (CLTE)	DIN EN ISO 11359-1;2	10 ⁻⁵ K ⁻¹	23-60° C, LONG.	3
THERMAL EXPANSION (CLTE)	DIN EN ISO 11359-1;2	10 ⁻⁵ K ⁻¹	23-100° C, LONG.	3
THERMAL EXPANSION (CLTE)	DIN EN ISO 11359-1;2	10 ⁻⁵ K ⁻¹	100-150° C, LONG.	4
SPECIFIC HEAT	ISO 22007-4:2008	J/(G*K)	-	1,1
THERMAL CONDUCTIVITY	ISO 22007-4:2008	W/(K*M)	-	0,82

ELECTRICAL PROPERTIES

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SURFACE RESISTIVITY ⁽⁹⁾	DIN EN 61340-2-3	Ω	CONDUCTIVE RUBBER, 23°C, 12% R.H.	10 ⁴ 10 ¹¹
VOLUME RESISTIVITY	DIN EN 61340-2-3	Ω	CONDUCTIVE RUBBER, 23°C, 12% R.H.	10 ⁷ -10 ¹²

MISCELLANEOUS PROPERTIES –

WATER ABSORPTION ⁽¹⁰⁾	DIN EN ISO 62	%	24H / 96H (23°C)	0,02 / 0,03
RESISTANCE TO HOT WATER / BASES ⁽¹¹⁾	-	-	-	+
RESISTANCE TO WEATHERING ⁽¹²⁾	-	-	-	-
FLAMMABILITY (UL94) ⁽¹³⁾	DIN IEC 60695-11-10	-	CORRESPONDING TO	V0
DENSITY	ISO 1183	G/CM ³	DRY	1,44
COLOR	-		BLACK OPAQUE	

REV.	DATE	DESCRIPTION	MODIFIED PARAGRAPHS	WRITTEN BY	APPROVED BY
01	12/2020	LAYOUT UPDATE	//	601.271	601.271

1) FOR TENSILE TEST: SPECIMEN TYPE 1B.

2) FOR FLEXURAL TEST: SUPPORT SPAN 64MM, NORM SPECIMEN.

3) SPECIMEN 10X10X10MM.

4) SPECIMEN 10X10X50MM, MODULUS RANGE BETWEEN 0.5 AND 1% COMPRESSION.

5) FOR CHARPY TEST: SUPPORT SPAN 64MM, NORM SPECIMEN.

6) SPECIMEN IN 4MM THICKNESS.

7) FOUND IN PUBLIC SOURCES.

8) FOUND IN PUBLIC SOURCES. INDIVIDUAL TESTING REGARDING APPLICATION CONDITIONS IS MANDATORY.

9) SPECIMEN IN 20MM THICKNESS.

10) Ø CA. 50MM, H=13MM

11) + GOOD RESISTANCE

12) - POOR RESISTANCE

13) CORRESPONDING MEANS NO LISTING AT UL (YELLOW CARD). THE INFORMATION MIGHT BE TAKEN FROM RESIN, STOCK SHAPE OR ESTIMATION. INDIVIDUAL TESTING REGARDING APPLICATION CONDITIONS IS MANDATORY.

THIS DATASHEET AND ALL PROPRIETIES INDICATED COME DIRECTLY FROM THE PRODUCER'S STUDIES AND TESTS. D.H. LAMINA S.R.L. DOES NOT PRODUCE THE MATERIAL.

THE CONTENTS OF THIS DATASHEETS ARE MEANT TO GIVE AN OVERVIEW OF THE PRODUCT'S PROPRIETIES. IT REFLECTS OUR CURRENT KNOWLEDGE AND MAY NOT BE COMPLETE. THE VALUES SHOULD BE TAKEN AS GUIDE VALUES BECAUSE THEY ARE DEPENDENT ON SURROUNDING CONDITIONS AND MACHINING METHODS. THE VALUES ARE IN NO WAY A LEGALLY BINDING ASSURANCE OF THE PRODUCT'S PROPRIETIES OR ITS SUITABILITY FOR USE IN A SPECIFIC APPLICATION. ALL STATED VALUES ARE AVERAGE ESTABLISHED FROM MANY INDIVIDUAL TESTS. FOR SPECIFIC APPLICATIONS, WE RECOMMEND DETERMINING SUITABILITY BY MEANS A TRIAL.

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