

**PA66 + PE**  
**TECHNICAL DATA SHEET**

**FULL NAME:** EXTRUDED POLYAMIDE 66 FILLED POLYETHYLENE

MECHANICAL PROPERTIES	TEST METHOD	UNIT	CONDITION OF SPECIMEN	GUIDELINE VALUE
YIELD STRESS – 23°C	ISO 527	MPA	-	64
ELONGATION AT BREAK – 23°C	ISO 527	%	-	12
TENSILE E-MODULUS	ISO 527	MPA	-	2700
BENDING MODULUS	ISO 178	MPA	-	2600
FLEXURAL STRENGTH	ISO 178	MPA	-	100
CHARPY IMPACT STRENGTH – 23°C	ISO 179/1EU	KJ/M <sup>2</sup>	-	35
CHARPY NOTCHED IMPACT STRENGTH – 23°C	ISO 179/1EA	KJ/M <sup>2</sup>	-	3
SHORE D HARDNESS	ISO 868		-	80
COMPRESSIVE MODULUS	ISO 604	MPA	-	2200
COMPRESSIVE STRESS – 1% NOMINAL STRAIN	ISO 604	MPA	-	19
COMPRESSIVE STRESS – 2% NOMINAL STRAIN	ISO 604	MPA	-	42
COMPRESSIVE STRESS – 5% NOMINAL STRAIN	ISO 604	MPA	-	74

THERMAL PROPERTIES				
HDT- A – 1,82 MPA	ISO 75	°C	-	80
MAXIMUM SERVICE TEMPERATURE FOR FEW HOURS OPERATION	-	°C	-	120
SERVICE TEMPERATURE LONG TERM	-	°C	-	85
MINIMUM SERVICE TEMPERATURE	-	°C	-	-30
SPECIFIC HEAT CAPACITY	IEC 1006	J/(G*K)	DRY	1,7
COEFFICIENT OF THERMAL EXPANSION	DIN 53752	1/K <sup>10-5</sup>	-	9

DIELECTRIC PROPERTIES				
DIELECTRIC CONSTANT – 1 MHZ	IEC 60250	-	-	3,3
DIELECTRIC STRENGHT	IEC 60243	KV/MM	-	25

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VOLUME RESISTIVITY	IEC 60093	$\Omega \cdot \text{CM}$	-	$10^{15}$
SURFACE RESISTIVITY	IEC 60093	$\Omega$	-	$10^{13}$
RESISTANCE TO TRACKING (CTI)	IEC 60112	-	-	600

MISCELLANEOUS PROPERTIES				
DENSITY - 23°C	ISO 1183-1	$\text{G}/\text{CM}^3$	-	1,12
FLAMMABILITY CLASSIFICATION	UL 94	-	-	HB
WATER ABSORPTION - 23°C, SATURATION	ISO 62	%	-	8,5
WATER ABSORPTION - 23° / 50% RH	ISO 62	%	-	2,2
COEFFICIENT OF FRICTION <sup>2)</sup>	-	-	-	+
RESISTANCE TO WEAR <sup>1)</sup>	ISO 7148-2	$\mu\text{M}/\text{KM}$	DRY	4,3
CHEMICAL RESISTANCE <sup>2)</sup>	-	-	-	+

REV.	DATE	DESCRIPTION	MODIFIED PARAGRAPHS	WRITTEN BY	APPROVED BY
01	12/2020	LAYOUT UPDATE	//	601.37	601.37

<sup>1)</sup> RESISTANCE TO WEAR TESTED BY A PIN / ROTATING DISC ACCORDING DUN ISO 7148-2 UNDER FOLLOWING CONDITIONS: RA=0,35 - 0,45  $\mu\text{M}$  (STEEL DISC), v = 0,3 M/S, p= 3 N/MM<sup>2</sup>, TIME T > 16 H

<sup>2)</sup> EXPLANATION SYMBOLS: + GOOD

TESTS ARE DONE UNDER DRY CONDITIONS AT ROOM TEMPERATURE

**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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