

# PTFE VIRGIN

## TECHNICAL DATA SHEET

**FULL NAME:** VIRGIN POLYTETRAFLUOROETHYLENE

PHISICAL – MECHANICAL PROPERTIES	METHOD	UNIT	MOULDED	EXTRUDED
DENSITY	ASTM D792	G/CM <sup>3</sup>	2,14 – 2,18	2,14 – 2,18
HARDNESS – SHORE D	ASTM D2240	/	≥ 51	≥ 50
TENSILE STRENGTH – CD	ISO 527 (V=59 MM/ MINMOCROTENSILE DIE)	N/MM <sup>2</sup>	≥ 24	≥ 20
ELONGATION AT BREAK – CD	ISO 527 (V=59 MM/ MINMOCROTENSILE DIE)	%	≥ 250	≥ 200
COMPRESSIVE STRENGTH AT 1% DEFORMATION – CD	ASTM D695	N/MM <sup>2</sup>	4 – 5	≥ 4
DEFORMATION UNDER LOAD AT ROOM TEMPERATURE AFTER 24 HOURS AT 13,7 N/MM <sup>2</sup>	ASTM D621	%	≤ 17	≤
PERMANENT DEFORMATION AS ABOVE AFTER 24 HOURS OF REST AT ROOM TEMPERATURE - CD	ASTM D621	%	≤ 9	≤ 8
DEFORMATION UNDER LOAD AT 260°C AFTER 24 HOURS AT 41 N/MM <sup>2</sup> – CD	ASTM D621	%	≤ 32	-
PERMANENT DEFORMATION AS ABOVE AFTER 24 HOURS OF REST AT ROOM TEMPERATURE – CD	ASTM D621	%	≤ 19	-
IMPACT STRENGTH IZOD	ASTM D256	J/M	153	-

TRIBOLOGICAL PROPERTIES				
DYNAMIC COEFFICIENT OF FRICTION	ASTM D1894 ASTMD37302	/	0,06	0,06
WEAR FACTOR K	ASTM D3702	/	2.900	-
PV LIMIT AT 3 M/MIN AT 30 M/MIN AT 300 M/MIN	/	N/MM <sup>2</sup> • M/MIN	2,4 4,2 5,7	-

THERMAL PROPERTIES				
SERVICE TEMPERATURE (MIN – MAX)	/	°C	- 200 / + 260	- 200 / +260
THERMAL EXPANSION COEFFICIENT (LINEAR) 25 – 100°C	SIMILAR TO ASTM D696	10 <sup>-5</sup> (MM/MM)/°C	12 - 13	12 - 13

ELECTRICAL PROPERTIES				
DIELECTRIC STRENGTH (SPECIMEN 0,5 MM THICK)	ASTM D149	KV / MM	≥ 40	≥ 20

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DIELECTRIC CONSTANT AT 60 Hz AND 10 <sup>6</sup> Hz	ASTM D150	/	2,05 - 2,10	-
VOLUME RESISTIVITY	ASTM D257	Ω • CM	10 <sup>18</sup>	10 <sup>18</sup>
SURFACE RESISTIVITY	ASTM D257	Ω	10 <sup>17</sup>	10 <sup>17</sup>

REV.	DATE	DESCRIPTION	MODIFIED PARAGRAPHS	WRITTEN BY	APPROVED BY
01	12/2020	LAYOUT UPDATE	//	601.203	601.203

**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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