

PTFE TFM
TECHNICAL DATA SHEET

FULL NAME: MODIFIED POLYTETRAFLUOROETHYLENE

| PHISICAL – MECHANICAL PROPERTIES | METHOD | UNIT | MOULDED | EXTRUDED |
|---|---|-------------------|-------------|-------------|
| DENSITY | ASTM D792 | G/CM ³ | 2,15 – 2,19 | 2,14 – 2,19 |
| HARDNESS – SHORE D | ASTM D2240 | / | ≥ 51 | ≥ 50 |
| TENSILE STRENGTH – CD | ISO 527 (v=59 MM/ MINMOCROTENSILE DIE) | N/MM ² | ≥ 30 | ≥ 24 |
| ELONGATION AT BREAK – CD | ISO 527 (v=59 MM/ MINMOCROTENSILE DIE) | % | ≥ 400 | ≥ 300 |
| COMPRESSIVE MODULUS | ASTM D695 | N/MM ² | ≥ 440 | - |
| COMPRESSIVE STRENGTH AT 1% DEFORMATION – CD | ASTM D695 | N/MM ² | 4,5 – 5,5 | ≥ 4 |
| DEFORMATION UNDER LOAD AT ROOM TEMPERATURE AFTER 24 HOURS AT 13,7 N/MM ² | ASTM D621 | % | ≤ 7 | ≤ 8 |
| PERMANENT DEFORMATION AS ABOVE AFTER 24 HOURS OF REST AT ROOM TEMPERATURE - CD | ASTM D621 | % | ≤ 3,5 | ≤ 4 |

| TRIBOLOGICAL PROPERTIES | | | | |
|---------------------------------|--------------------------|---|------|------|
| DYNAMIC COEFFICIENT OF FRICTION | ASTM D1894 ASTM D3702 | / | 0,06 | 0,06 |

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

| THERMAL PROPERTIES | | | | |
|---|-------------------------|-----------------------------|---------------|-------------|
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| ELECTRICAL PROPERTIES | | | | |
|---|-----------|---------|------------------|------------------|
| DIELECTRIC STRENGTH (SPECIMEN 0,5 MM THICK) | ASTM D149 | KV / MM | ≥ 60 | ≥ 50 |
| VOLUME RESISTIVITY | ASTM D257 | Ω • CM | 10 ¹⁸ | 10 ¹⁸ |
| SURFACE RESISTIVITY | ASTM D257 | Ω | 10 ¹⁷ | 10 ¹⁷ |

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| 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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