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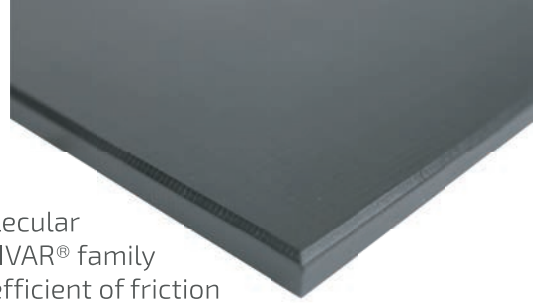
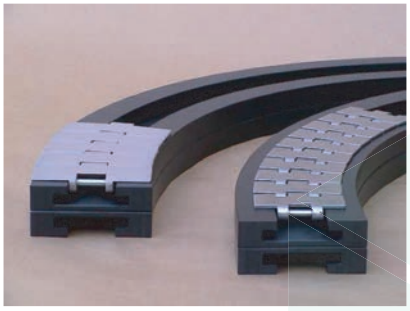
# TIVAR® DRYSLIDE



**Semi-crystalline plastic,** that thanks to the lubricant and the highest molecular weight is the material that offers the lowest coefficient of friction of the TIVAR® family and better resistance to wear and abrasion than TIVAR® 1000. The low coefficient of friction and its antistatic properties make TIVAR® DRYSLIDE an excellent material in harsh environments. The additives used also considerably improve the UV resistance.



## MAIN CHARACTERISTICS

- Self-lubricating
- Extremely low coefficient of friction
- Excellent noise reduction
- Very high resistance to wear
- High resistance to impact
- Good chemical resistance
- UV resistance
- It does not absorb moisture
- Electro-static heatsinks
- Ideal for dusty environments
- Resistant to corrosion
- Anti-static

## APPLICATIONS

- Curbs and guides for side chains
- Slide plates for conveyor belts
- High speed chain guides
- Guides for flat and trapezoidal belts at high speeds
- Sliding ramps
- Transmission and slip components
- Sliding components in elevators
- Bypass Bars
- Guide rollers and roller covers

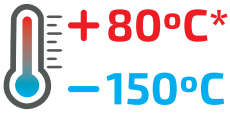
CHEMICAL RESISTANCE

ELECTRICAL INSULATION

WEAR RESISTANCE

SLIDING PROPERTIES

IMPACT AO RESISTANCE



TEMPERATURE RANGE

*continuously (20.000H)

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# TECHNICAL DATASHEET

| PROPERTIES | TEST METHODS | UNITS | TIVAR® DRYSLIDE |
|---|---|---|---|
| COLOR | | - | BLACK |
| DENSITY | ISO 1183-1 | g/cm³ | 0.935 |
| MOLECULAR WEIGHT | - | $10^6$ g/mol | 9 |
| WATER ABSORPTION AT SATURATION IN WATER OF 23°C[1] | - | % | < 0.1 |
| **THERMAL PROPERTIES[2]** | | | |
| MELTING TEMPERATURE (DSC, 10°C/MIN) | ISO 11357-1/-3 | °C | 135 |
| THERMAL CONDUCTIVITY AT 23°C | - | W/(K.m) | 0.40 |
| COEFFICIENT OF LINEAR THERMAL EXPANSION | | | |
| BETWEEN 23-100°C | - | M/(m.K) | 200 x $10^{-6}$ |
| MAXIMUM ALLOWABLE SERVICE TEMPERATURE IN AIR | | | |
| FOR SHORT PERIODS[3] | - | °C | 120 |
| CONTINUOUSLY: FOR 20.000H[4] | | °C | 80 |
| MINIMUM SERVICE TEMPERATURE[5] | - | °C | -150 |
| TEMPERATURE OF DEFLECTION UNDER LOAD | | | |
| METHOD A: 1.8 MPa | ISO 75-1/-2 | °C | 42 |
| VICAT SOFTENING TEMPERATURE - VST/B50 | ISO 306 | °C | 80 |
| FLAMMABILITY[6] | - | | |
| "OXYGEN INDEX" | ISO 4589-1/-2 | % | <20 |
| ACCORDING TO UL94 (6MM DE ESPESSURA) | - | - | HB |
| **MECHANICAL PROPERTIES AT 23°C[7]** | | | |
| TENSION TEST[8] | | | |
| TENSILE STRESS AT YIELD[9] | ISO 527-1/-2 | MPa | 18 |
| TENSILE STRAIN AT BREAK | ISO 527-1/-2 | % | >50 |
| TENSILE MODULUS OF ELASTICITY[10] | ISO 527-1/-2 | MPa | 650 |
| COMPRESSION TEST[11] | | | |
| COMPRESSIVE STRESS AT 1/2/5% NOMINAL STRAIN[10] | ISO 604 | MPa | 6/10/16 |
| CHARPY IMPACT STRENGTH - UNNOTCHED[12] | ISO 179-1/1eU | KJ/m² | NO BREAK |
| CHARPY IMPACT STRENGTH - NOTCHED | ISO 179-1/1eA | KJ/m² | 100P |
| CHARPY IMPACT STRENGTH - NOTCHED (DOUBLE 14° NOTCH)[13] | ISO 11542-2 | KJ/m² | 130 |
| BALL INDENTATION HARDNESS[14] | ISO 2039-1 | N/mm² | 32 |
| SHORE HARDNESS D (15 S)[14] | ISO 868 | - | 85 |
| **ELECTRICAL PROPERTIES AT 23°C** | | | |
| ELECTRIC STRENGTH[15] | IEC 60243-1 | kV/mm | - |
| VOLUME RESISTIVITY | IEC 60093 | Ohm.cm | - |
| SURFACE RESISTIVITY | IEC 60093 | Ohm | < $10^8$ |
| RELATIVE PERMITTIVITY $\varepsilon_r$ : A 100HZ | IEC 60250 | - | - |
| RELATIVE PERMITTIVITY $\varepsilon_r$: A 1MHZ | IEC 60250 | - | - |
| DIELECTRIC DISSIPATION FACTOR TAN δ : A 100HZ | IEC 60250 | - | - |
| DIELECTRIC DISSIPATION FACTOR TAN δ : A 1MHZ | IEC 60250 | - | - |
| COMPARATIVE TRACKING INDEX (CTI) | IEC 60112 | - | - |

NOTE: 1 g/cm³ = 1000 kg/m³ ; 1 MPa = 1 N/mm² ; 1 KV/mm = 1 MV/m

**(1)** Measured in 1 mm test pieces. **(2)** The figures given on these properties are for the most part derived from data from suppliers of raw materials. **(3)** Only for periods of short exposure (few hours) in applications where only little or no weight is applied to the material. **(4)** Temperature which it resists for a minimum period of 20,000 hours. After this time, there is a decrease of about 50% in tensile strength compared to the original value. The given temperature values are based on the thermal oxidation degradation which occurs which causes a reduction of the properties. In the meantime, the maximum permissible service temperature depends in many cases essentially on the deduction and magnitude of the mechanical stresses to which the material is subject. **(5)** As the impact strength decreases with decreasing temperature, the minimum permissible service temperature is determined by the extent of impact to which the material is subjected. The values given are based on unfavorable impact conditions and can not therefore be considered absolute limits. **(6)** These assessments are derived from the technical specifications of the manufacturers of the raw materials and do not allow the determination of the behavior of the materials under fire conditions. **(7)** Most of the figures given by the mechanical properties of the extruded materials are mean values of 30 mm-thick plate tests. **(8)** Testing of test pieces: Type 1B. **(9)** Speed test: 50 mm / min. **(10)** Speed test: 1 mm / min. **(11)** Testing of test pieces: cylinders ø 8x16 mm. **(12)** Pendulum used: 15J. **(13)** Pendulum used: 25J. **(14)** Measured on 10 mm thick test pieces. **(15)** Electrode configuration: ø 25 / 75mm coaxial cylinders; in transformer oil in accordance with IEC 60296; Test samples 1 mm thick.