

Grilon TSS/4

PA666

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Information

Product designation according to ISO 1874:

PA66+PA6, MHR, 14-030N

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	3000 / 1100	MPa	ISO 527-1/-2
Yield stress	80 / 50	MPa	ISO 527-1/-2
Yield strain	5 / 15	%	ISO 527-1/-2
Nominal strain at break	15 / >50	%	ISO 527-1/-2
Stress at break	55 / -	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	5 / 40	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6 / 5	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	145 / 65	MPa	ISO 2039-1

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	260 / -	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	65 / -	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	70 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	80 / -	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	IEC 60695-11-10
Max. usage temperature (long term)	90 - 110	°C	EMS
Max. usage temperature (short term)	220	°C	EMS

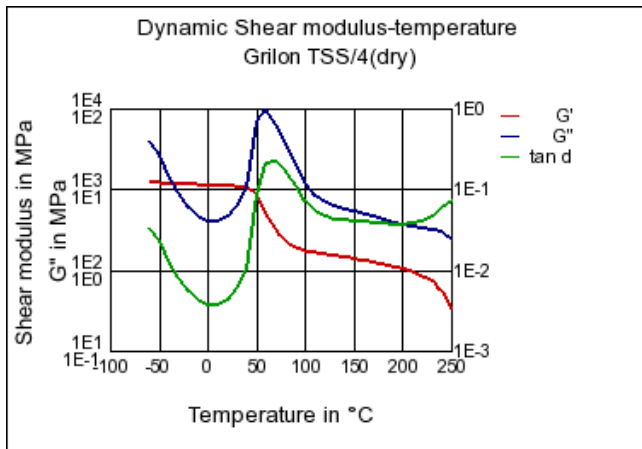
Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1E12 / 1E11	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	28 / 26	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	8 / -	%	Sim. to ISO 62
Humidity absorption	2.5 / -	%	Sim. to ISO 62
Density	1130 / -	kg/m ³	ISO 1183

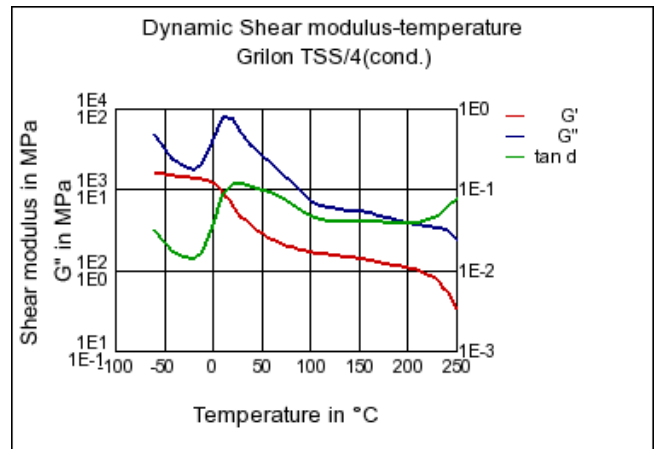
Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	1.2 / -	%	ISO 294-4, 2577
Molding shrinkage (normal)	1.4 / -	%	ISO 294-4, 2577

Diagrams

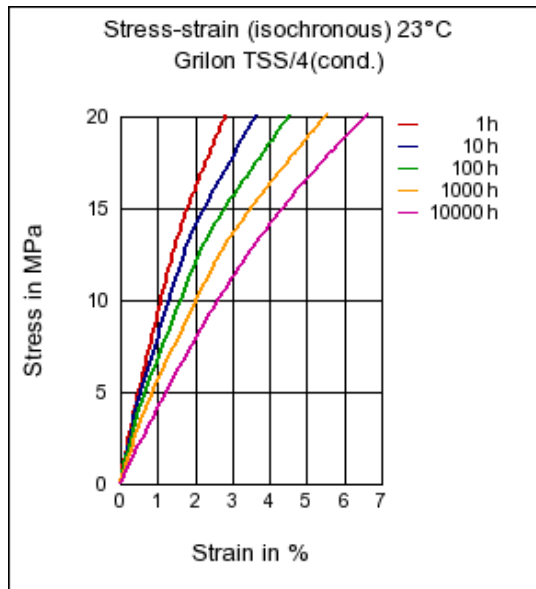
Dynamic Shear modulus-temperature



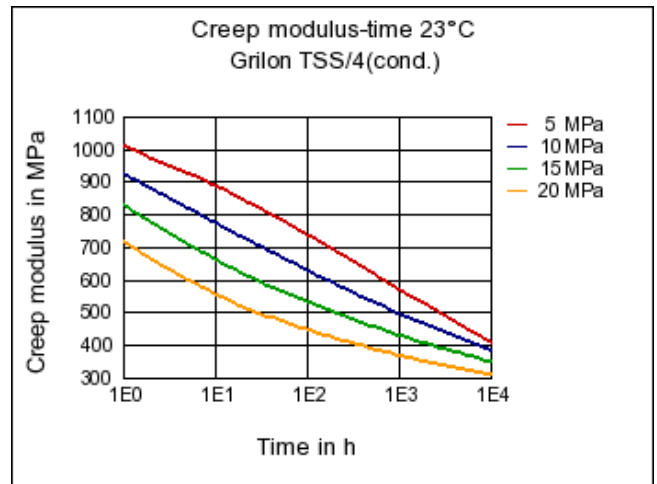
Dynamic Shear modulus-temperature



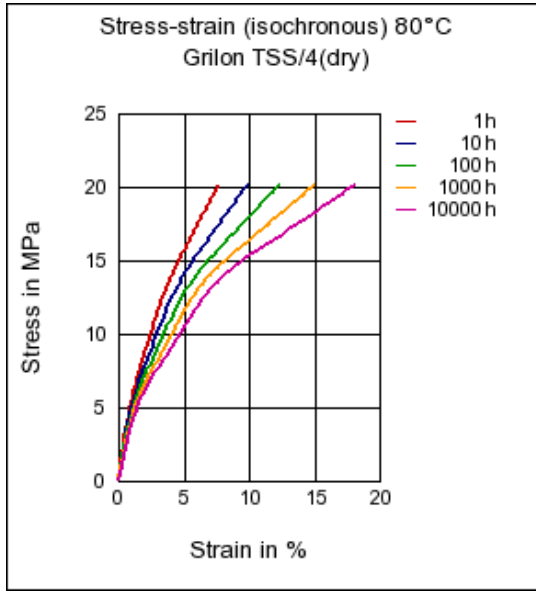
Stress-strain (isochronous) 23 °C



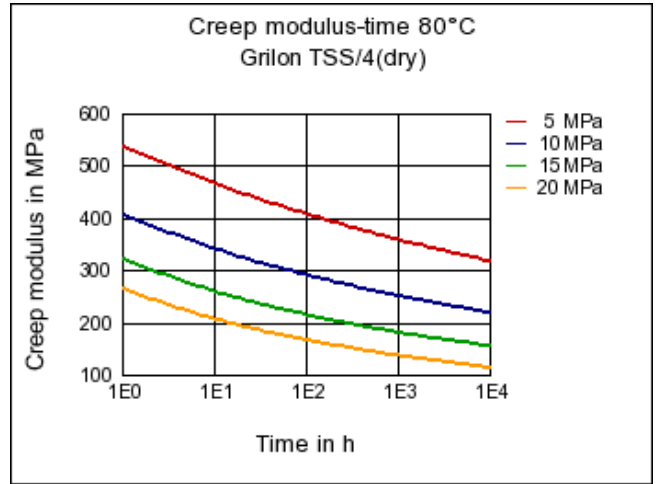
Creep modulus-time 23 °C



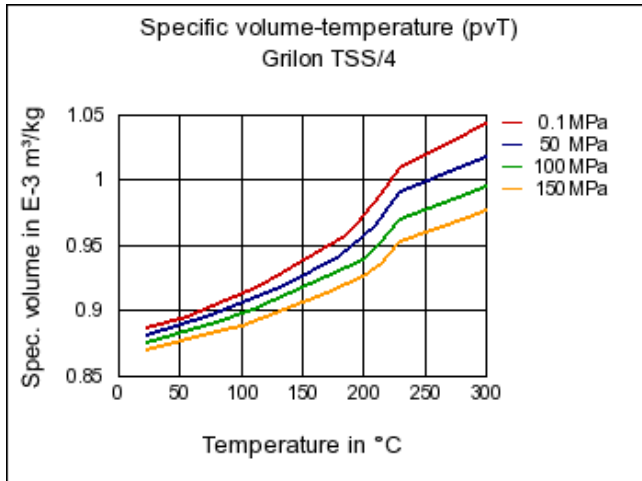
Stress-strain (isochronous) 80 °C



Creep modulus-time 80 °C



Specific volume-temperature (pvT)



Characteristic

Processing

Injection Molding

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Product Attributes

Nucleated

Chemical Media Resistance

Automotive

Automotive electr. and electronics, lighting, Interior

Electricals & Electronics

Electrical appliances, Connectors

Industry & Consumer goods

Mechanical Engineering, Power transmission, Sports & Leisure, Tools & Accessories

Acids

- ☹️ Acetic Acid (5% by mass) (23 °C)
- 🚫 Chromic Acid solution (40% by mass) (23 °C)
- ☹️ Citric Acid solution (10% by mass) (23 °C)
- 🚫 Hydrochloric Acid (36% by mass) (23 °C)
- ☹️ Lactic Acid (10% by mass) (23 °C)
- 🚫 Nitric Acid (40% by mass) (23 °C)
- 🚫 Sulfuric Acid (38% by mass) (23 °C)
- 🚫 Sulfuric Acid (5% by mass) (23 °C)

Bases

- ☹️ Ammonium Hydroxide solution (10% by mass) (23 °C)
- ☹️ Sodium Hydroxide solution (1% by mass) (23 °C)
- ☹️ Sodium Hydroxide solution (35% by mass) (23 °C)

Alcohols

- ☹️ Ethanol (23 °C)
- ☹️ Isopropyl alcohol (23 °C)
- ☹️ Methanol (23 °C)

Hydrocarbons

- ☹️ Toluene (23 °C)
- ☹️ iso-Octane (23 °C)
- ☹️ n-Hexane (23 °C)

Ketones

- ☹️ Acetone (23 °C)

Ethers

- ☹️ Diethyl ether (23 °C)

Mineral oils

- ☹️ Insulating Oil (23 °C)
- ☹️ SAE 10W40 multigrade motor oil (130 °C)
- ☹️ SAE 10W40 multigrade motor oil (23 °C)
- ☹️ SAE 80/90 hypoid-gear oil (130 °C)

Standard Fuels

- ☹️ Diesel fuel (pref. ISO 1817 Liquid F) (23 °C)
- ☹️ Diesel fuel (pref. ISO 1817 Liquid F) (90 °C)
- ☹️ Diesel fuel (pref. ISO 1817 Liquid F) (>90 °C)
- ☹️ ISO 1817 Liquid 1 (60 °C)
- ☹️ ISO 1817 Liquid 2 (60 °C)
- ☹️ ISO 1817 Liquid 3 (60 °C)
- ☹️ ISO 1817 Liquid 4 (60 °C)
- ☹️ Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23 °C)
- ☹️ Standard fuel without alcohol (pref. ISO 1817 Liquid C) (23 °C)






Salt solutions

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-  Sodium Carbonate solution (2% by mass) (23 °C)
-  Sodium Carbonate solution (20% by mass) (23 °C)
-  Sodium Chloride solution (10% by mass) (23 °C)
-  Sodium Hypochlorite solution (10% by mass) (23 °C)
-  Zinc Chloride solution (50% by mass) (23 °C)

Other

-  1% nonylphenoxy-polyethyleneoxy ethanol in water (23 °C)
-  50% Oleic acid + 50% Olive Oil (23 °C)
-  DOT No. 4 Brake fluid (130 °C)
-  Deionized water (90 °C)
-  Ethyl Acetate (23 °C)
-  Ethylene Glycol (50% by mass) in water (108 °C)
-  Hydrogen peroxide (23 °C)
-  Phenol solution (5% by mass) (23 °C)
-  Water (23 °C)