

Grilon BRZ 247 W

PA6

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	650 / 380	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)	120 / N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	7 / 10	kJ/m ²	ISO 179/1eA

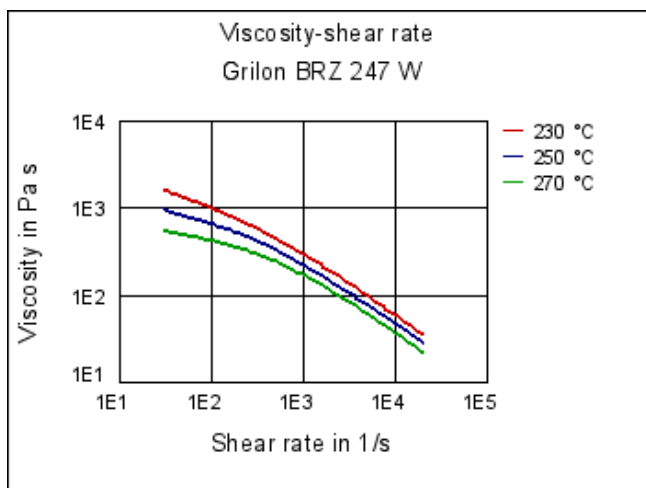
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	215 / -	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	40 / -	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	75 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	140 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	150 / -	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

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1E12 / 1E11	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	31 / 29	kV/mm	IEC 60243-1
Comparative tracking index	- / 500	-	IEC 60112

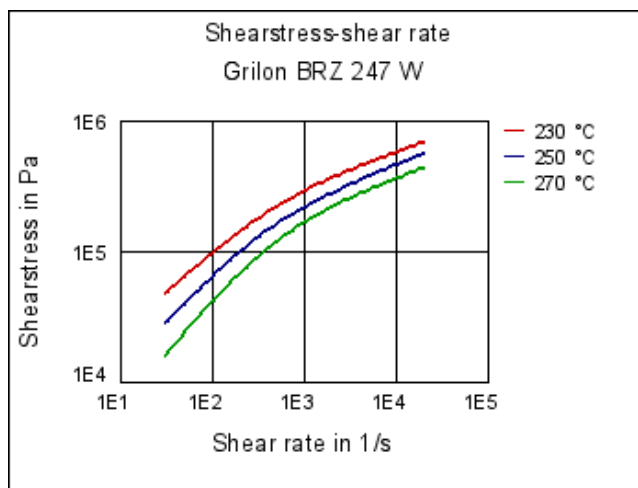
Other properties	dry / cond	Unit	Test Standard
Water absorption	8 / -	%	Sim. to ISO 62
Humidity absorption	2.5 / -	%	Sim. to ISO 62
Density	1120 / -	kg/m ³	ISO 1183

Diagrams

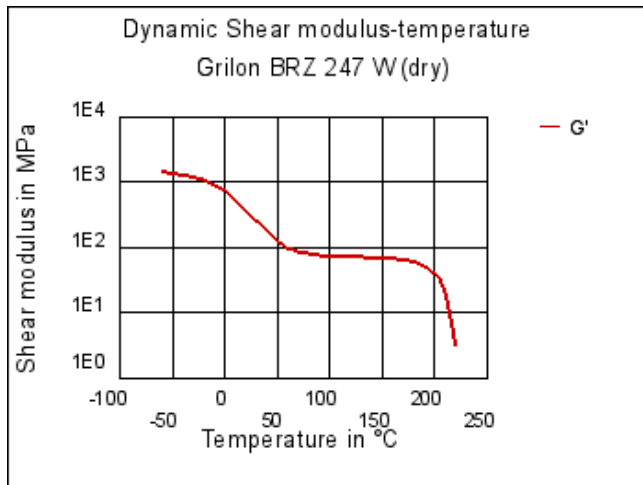
Viscosity-shear rate



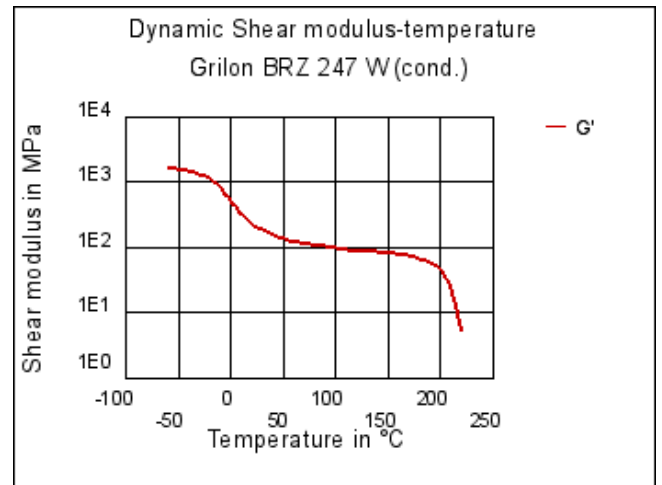
Shearstress-shear rate



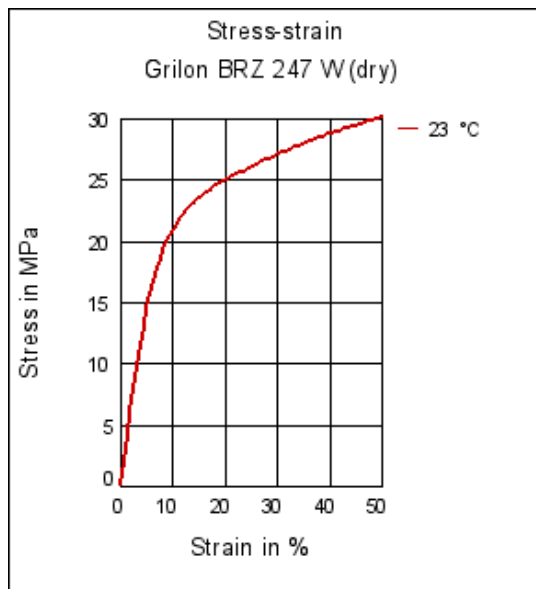
Dynamic Shear modulus-temperature



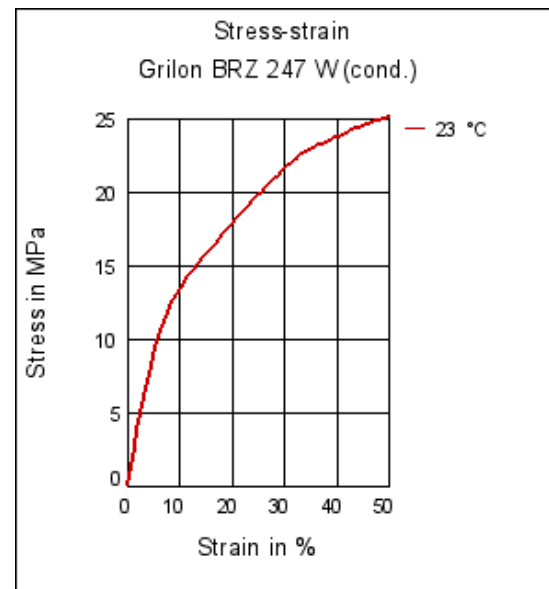
Dynamic Shear modulus-temperature



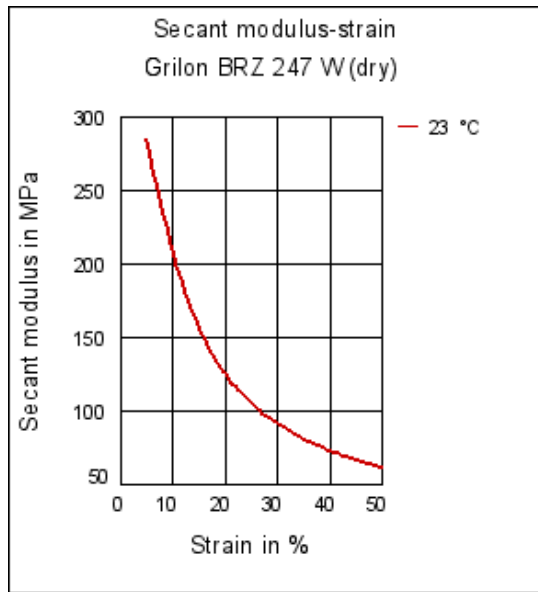
Stress-strain



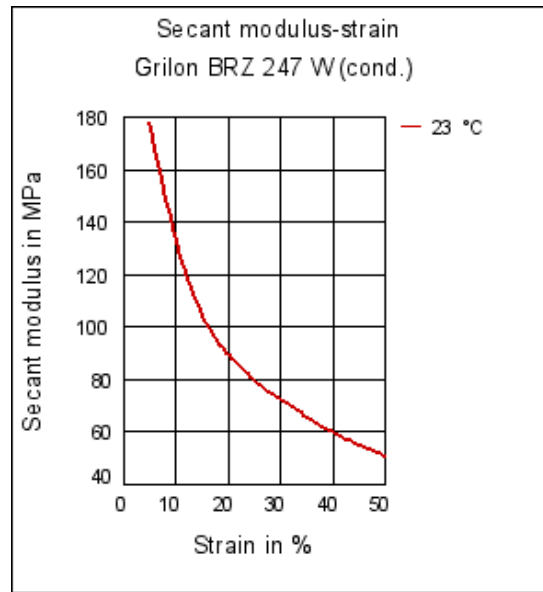
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Other Extrusion

Delivery form

Granules

Additives

Plasticizer

Special Characteristics

High impact or impact modified

Regional Availability

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

Product Attributes

Flexible

Automotive

Air intake systems, Cooling and climate control

Electricals & Electronics

Cables & Tubes

Industry & Consumer goods

Hydraulics & Pneumatics, Mechanical Engineering, Power transmission

Chemical Media Resistance

Acids

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

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Bases

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

Alcohols

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

Hydrocarbons

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

Ketones

- ☹️ Acetone (23°C)

Ethers

- ☹️ Diethyl ether (23°C)

Mineral oils

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

Standard Fuels








- ☹️ 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 without alcohol (pref. ISO 1817 Liquid C) (23°C)
- ☹️ Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23°C)
- ☹️ 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)

Salt solutions

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

Other

- ☹️ Ethyl Acetate (23°C)
- 🚫 Hydrogen peroxide (23°C)

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