

Grilon CF 6 S

PA*

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA 6/12, FT, 16-007

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	- / 400	MPa	ISO 527-1/-2

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	130 / -	°C	ISO 11357-1/-3

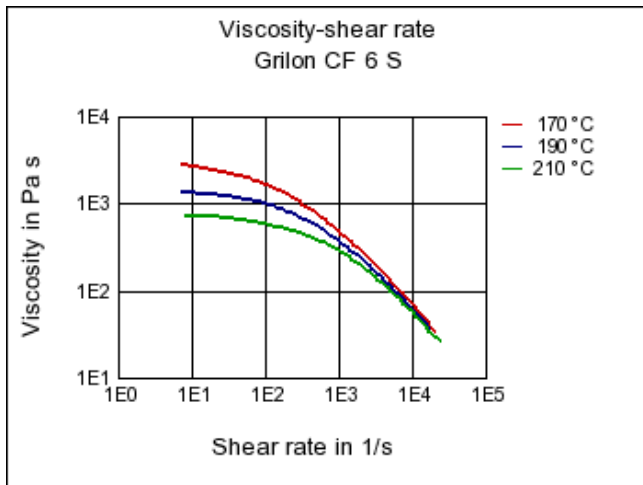
Other properties	dry / cond	Unit	Test Standard
Water absorption	5 / -	%	Sim. to ISO 62
Humidity absorption	2 / -	%	Sim. to ISO 62
Density	1050 / -	kg/m ³	ISO 1183

Film Properties	dry / cond	Unit	Test Standard
Stress at yield (parallel)	30 / -	MPa	ISO 527-3
Stress at yield (normal)	28 / -	MPa	ISO 527-3
Strain at yield (parallel)	15 / -	%	ISO 527-3
Strain at yield (normal)	8 / -	%	ISO 527-3
Maximum strain (parallel)	800 / -	%	ISO 527-3
Maximum strain (normal)	900 / -	%	ISO 527-3
Elmendorf Tear resistance (parallel)	80 / -	N	ISO 6383-2
Elmendorf Tear resistance (normal)	80 / -	N	ISO 6383-2
Trouser Tear resistance (parallel)	65 / -	N/mm	ISO 6383-1
Trouser Tear resistance (normal)	65 / -	N/mm	ISO 6383-1
Gloss, 60°	130 / -	-	ISO 2813
WVTR (23°C/85%r.h.)	15 / -	g/(m ² *d)	ISO 15106-1/-2
Oxygen transmission rate (23°C/0%r.h.)	120 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Oxygen transmission rate (23°C/85%r.h.)	200 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Carbon Dioxide transm. rate (23°C/0%r.h.)	400 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Carbon Dioxide transm. rate (23°C/85%r.h.)	800 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Stress at break (parallel)	85	MPa	ISO 527-3
Stress at break (normal)	55	MPa	ISO 527-3
Gelboflex test	100	holes/m ²	EMS

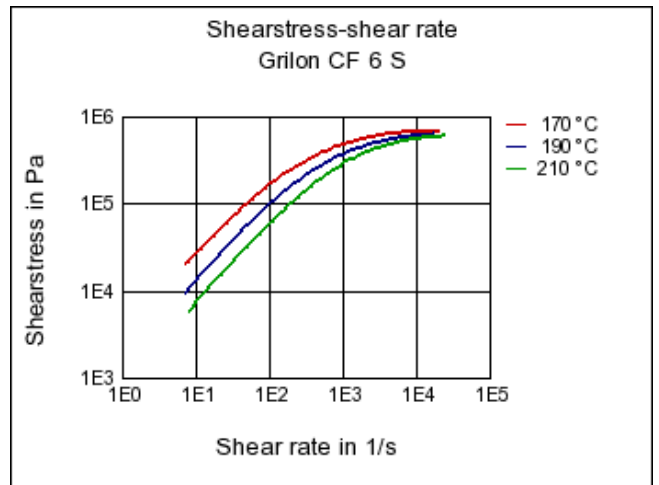
Rheo/Phys properties	dry / cond	Unit	Test Standard
Melt volume-flow rate (MVR)	180 / -	cm ³ /10min	ISO 1133
Temperature	275 / -	°C	ISO 1133
Load	5 / -	kg	ISO 1133

Diagrams

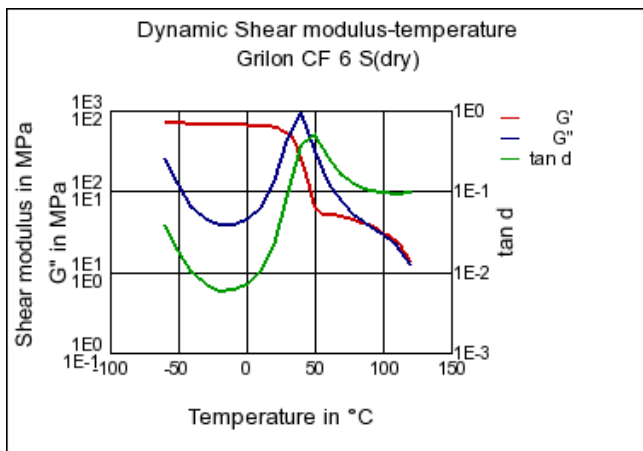
Viscosity-shear rate



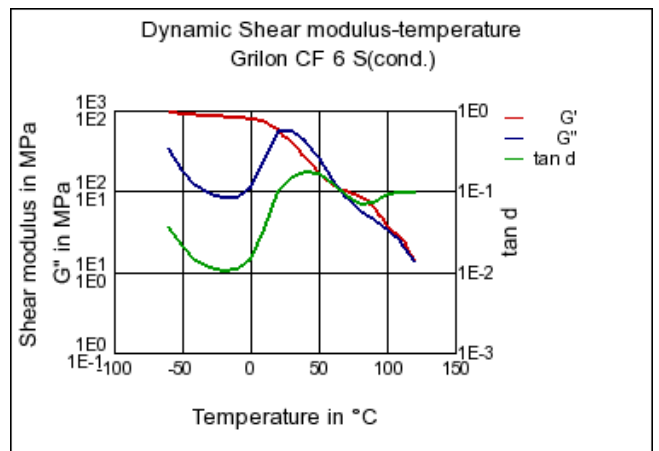
Shearstress-shear rate



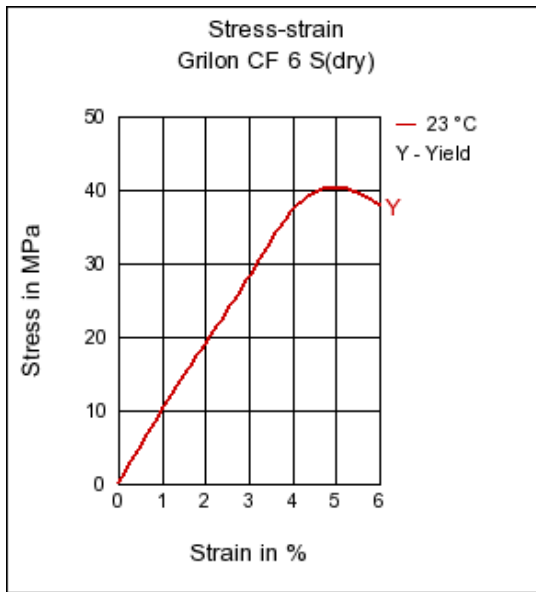
Dynamic Shear modulus-temperature



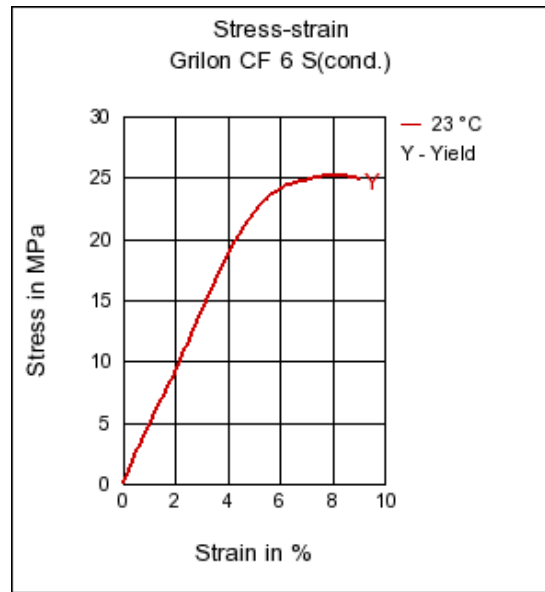
Dynamic Shear modulus-temperature



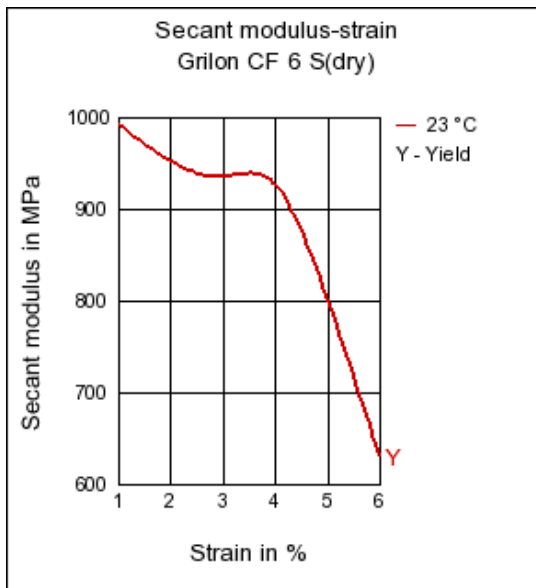
Stress-strain



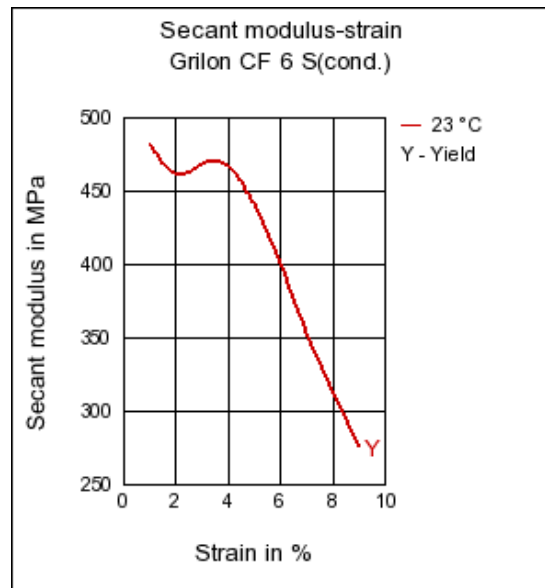
Stress-strain



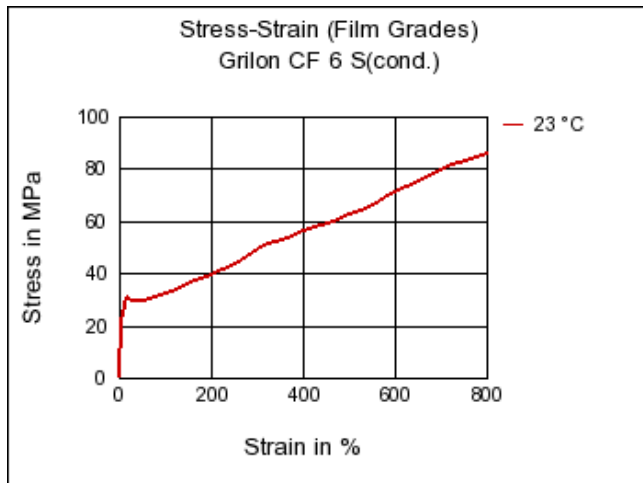
Secant modulus-strain



Secant modulus-strain



Stress-Strain (Film Grades)



Characteristics

Processing

Extrusion - cast film, Blown Film Extrusion, Other Extrusion

Product Attributes

Barrier Properties, Flexible, High viscosity, Co Polyamide

Delivery form

Granules

Packaging

Oriented film

Special Characteristics

Transparent

Food Contact

EU Requirements, FDA

Regional Availability

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

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)




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)