

Grilon CA 6 E

PA*

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA6/12-P, FT, 14-004

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	- / 350	MPa	ISO 527-1/-2

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

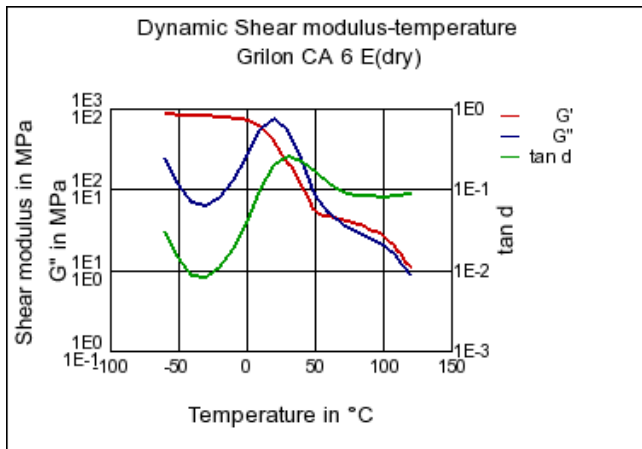
Other properties	dry / cond	Unit	Test Standard
Water absorption	5 / -	%	Sim. to ISO 62
Humidity absorption	2 / -	%	Sim. to ISO 62
Density	1060 / -	kg/m ³	ISO 1183

Film Properties	dry / cond	Unit	Test Standard
Stress at yield (parallel)	20 / -	MPa	ISO 527-3
Stress at yield (normal)	18 / -	MPa	ISO 527-3
Strain at yield (parallel)	15 / -	%	ISO 527-3
Strain at yield (normal)	15 / -	%	ISO 527-3
Maximum strain (parallel)	900 / -	%	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.)	20 / -	g/(m ² *d)	DIS 15106-1/-2
Oxygen transmission rate (23°C/0%r.h.)	150 / -	cm ³ /(m ² *d*bar)	DIS 15105-1/-2
Oxygen transmission rate (23°C/85%r.h.)	250 / -	cm ³ /(m ² *d*bar)	DIS 15105-1/-2
Carbon Dioxide transm. rate (23°C/0%r.h.)	450 / -	cm ³ /(m ² *d*bar)	DIS 15105-1/-2
Carbon Dioxide transm. rate (23°C/85%r.h.)	850 / -	cm ³ /(m ² *d*bar)	DIS 15105-1/-2
Stress at break (parallel)	90	MPa	ISO 527-3
Stress at break (normal)	60	MPa	ISO 527-3
Gelboflex test	100	holes/m ²	EMS

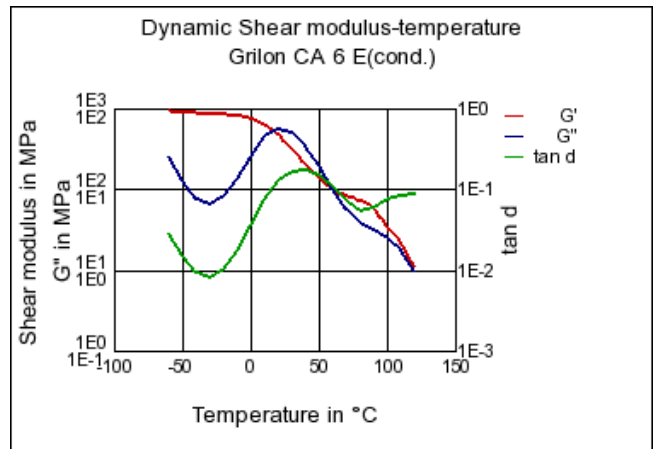
Rheo/Phys properties	dry / cond	Unit	Test Standard
Melt volume-flow rate (MVR)	250 / -	cm ³ /10min	ISO 1133
Temperature	275 / -	°C	ISO 1133
Load	5 / -	kg	ISO 1133

Diagrams

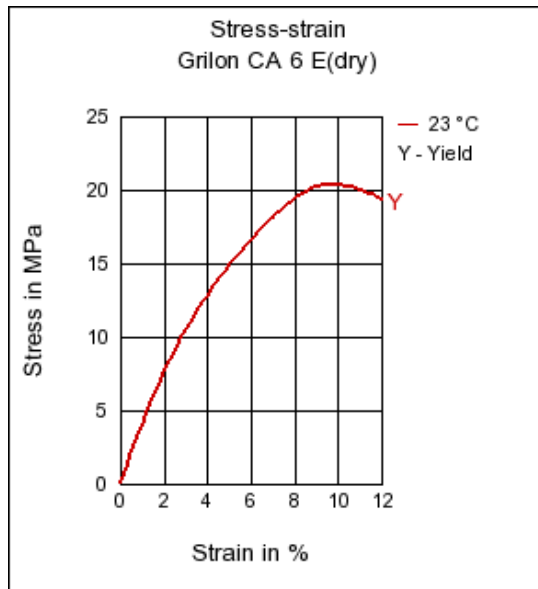
Dynamic Shear modulus-temperature



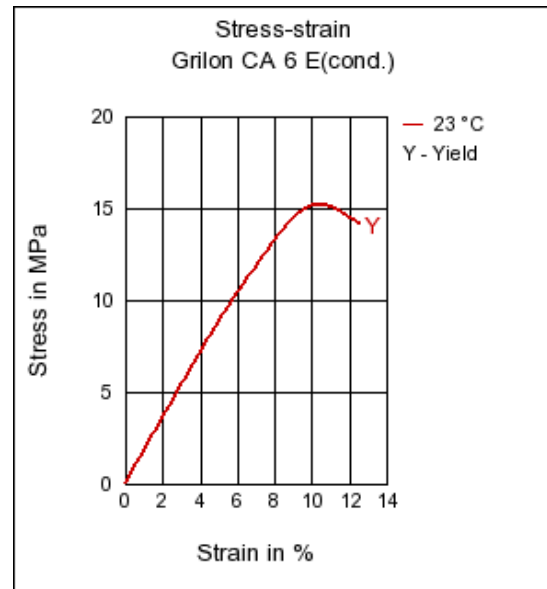
Dynamic Shear modulus-temperature



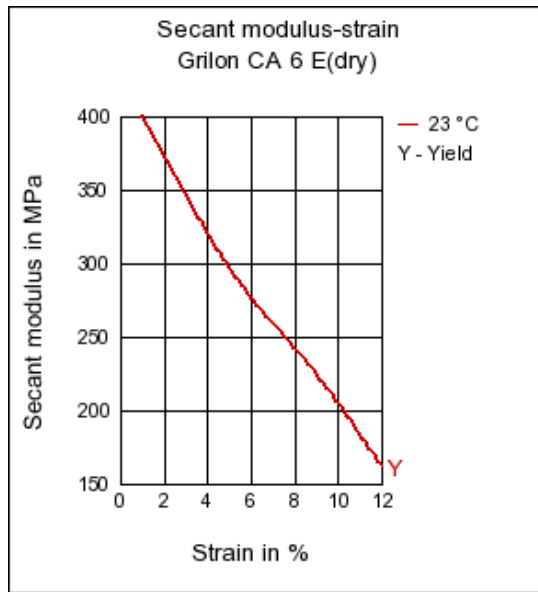
Stress-strain



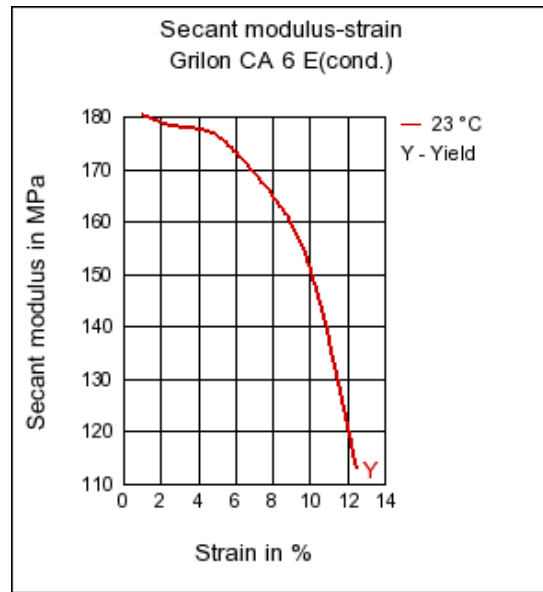
Stress-strain



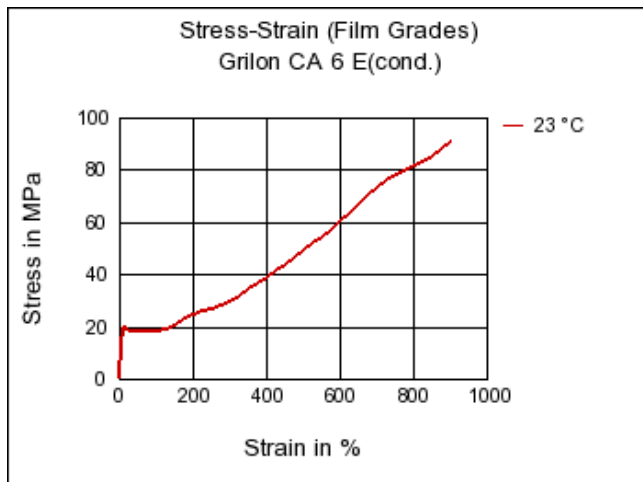
Secant modulus-strain



Secant modulus-strain



Stress-Strain (Film Grades)



Characteristics

Processing

Extrusion - cast film, Blown Film Extrusion, Other Extrusion

Delivery form

Granules

Special Characteristics

Transparent

Regional Availability

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

Product Attributes

Barrier Properties, Flexible, High viscosity, Co Polyamide

Packaging









Oriented film

Food Contact




EU Requirements

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)