

Grilon F 47 NL nat 6028

PA6

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA6, FS, 32-030/N

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	3000 / 750	MPa	ISO 527-1/-2

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	222 / -	°C	ISO 11357-1/-3

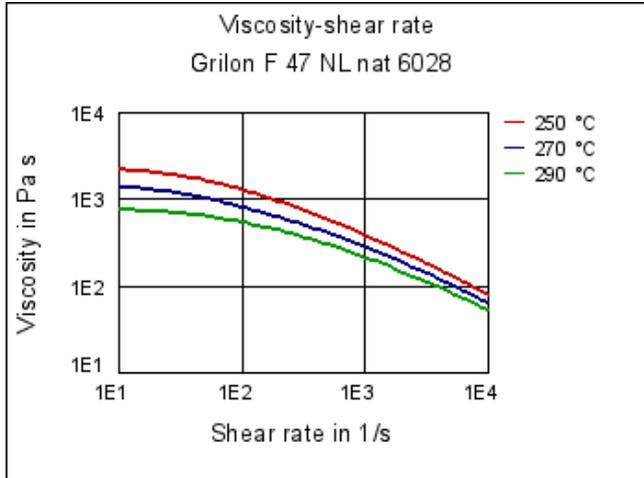
Other properties	dry / cond	Unit	Test Standard
Water absorption	9 / -	%	Sim. to ISO 62
Humidity absorption	3 / -	%	Sim. to ISO 62
Density	1140 / -	kg/m ³	ISO 1183

Film Properties	dry / cond	Unit	Test Standard
Stress at yield (parallel)	35 / -	MPa	ISO 527-3
Stress at yield (normal)	30 / -	MPa	ISO 527-3
Strain at yield (parallel)	15 / -	%	ISO 527-3
Strain at yield (normal)	15 / -	%	ISO 527-3
Maximum strain (parallel)	700 / -	%	ISO 527-3
Maximum strain (normal)	700 / -	%	ISO 527-3
Elmendorf Tear resistance (parallel)	10 / -	N	ISO 6383-2
Elmendorf Tear resistance (normal)	10 / -	N	ISO 6383-2
Trouser Tear resistance (parallel)	30 / -	N/mm	ISO 6383-1
Trouser Tear resistance (normal)	30 / -	N/mm	ISO 6383-1
Dynamic coefficient of friction	0.25 / -	-	ISO 8295
Gloss, 60°	100 / -	-	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.)	25 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Oxygen transmission rate (23°C/85%r.h.)	50 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Carbon Dioxide transm. rate (23°C/0%r.h.)	80 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Carbon Dioxide transm. rate (23°C/85%r.h.)	250 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Stress at break (parallel)	100	MPa	ISO 527-3
Stress at break (normal)	90	MPa	ISO 527-3
Gelboflectest	900	holes/m ²	EMS

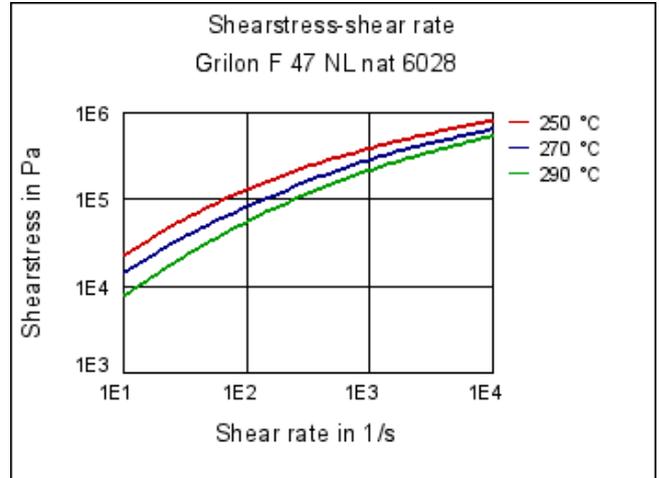
Rheo/Phys properties	dry / cond	Unit	Test Standard
Melt volume-flow rate (MVR)	15 / -	cm ³ /10min	ISO 1133
Temperature	275 / -	°C	ISO 1133
Load	5 / -	kg	ISO 1133

Diagrams

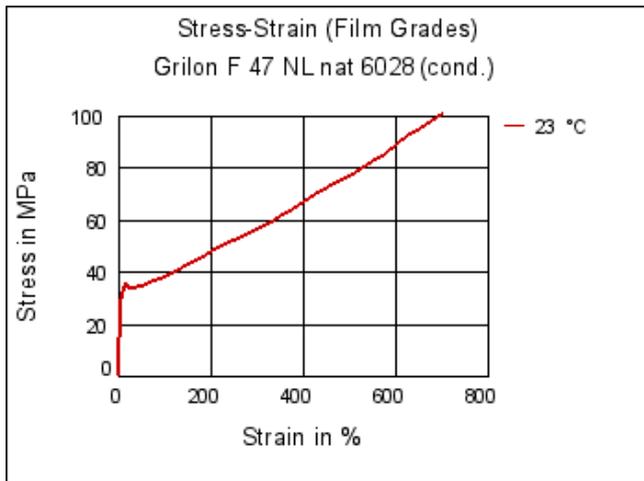

Viscosity-shear rate



Shearstress-shear rate



Stress-Strain (Film Grades)



Characteristics

Processing

Extrusion - cast film, Extrusion - blow molding, Blown Film
Extrusion, Other Extrusion

Delivery form

Granules

Regional Availability

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

Product Attributes

Barrier Properties, High viscosity, Nucleated

Industry & Consumer goods

Mechanical Engineering

Packaging

Blow moulded containers, Non oriented film, Oriented film, Tubes

Food Contact

EU Requirements, FDA



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)

