

Grivory G 21

PA6I/6T

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	3000 / 3000	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	8 / 8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	8 / 2	kJ/m ²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
Glass transition temperature (10°C/min)	125 / -	°C	ISO 11357-1/-2

Other properties	dry / cond	Unit	Test Standard
Water absorption	7 / -	%	Sim. to ISO 62
Humidity absorption	2 / -	%	Sim. to ISO 62
Density	1180 / -	kg/m ³	ISO 1183

Film Properties	dry / cond	Unit	Test Standard
Stress at yield (parallel)	85 / -	MPa	ISO 527-3
Stress at yield (normal)	85 / -	MPa	ISO 527-3
Strain at yield (parallel)	5 / -	%	ISO 527-3
Strain at yield (normal)	5 / -	%	ISO 527-3
Maximum strain (parallel)	300 / -	%	ISO 527-3
Maximum strain (normal)	300 / -	%	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)	5 / -	N/mm	ISO 6383-1
Trouser Tear resistance (normal)	5 / -	N/mm	ISO 6383-1
Gloss, 60°	160 / -	-	ISO 2813
WVTR (23°C/85%r.h.)	7 / -	g/(m ² *d)	ISO 15106-1/-2
Oxygen transmission rate (23°C/0%r.h.)	30 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Oxygen transmission rate (23°C/85%r.h.)	10 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Carbon Dioxide transm. rate (23°C/0%r.h.)	90 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
Carbon Dioxide transm. rate (23°C/85%r.h.)	40 / -	cm ³ /(m ² *d*bar)	ISO 15105-1/-2

Rheo/Phys properties	dry / cond	Unit	Test Standard
Melt volume-flow rate (MVR)	25 / -	cm ³ /10min	ISO 1133
Temperature	275 / -	°C	ISO 1133
Load	5 / -	kg	ISO 1133

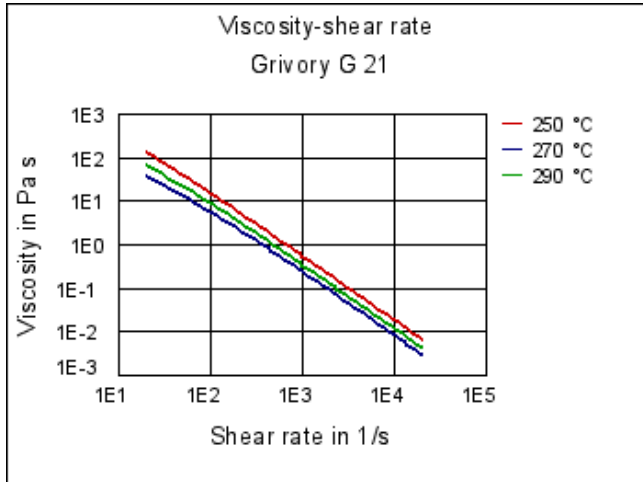
Diagrams

Grivory G 21

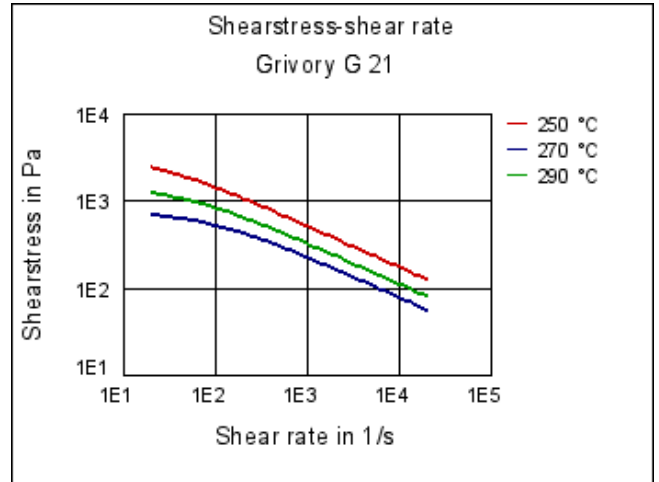
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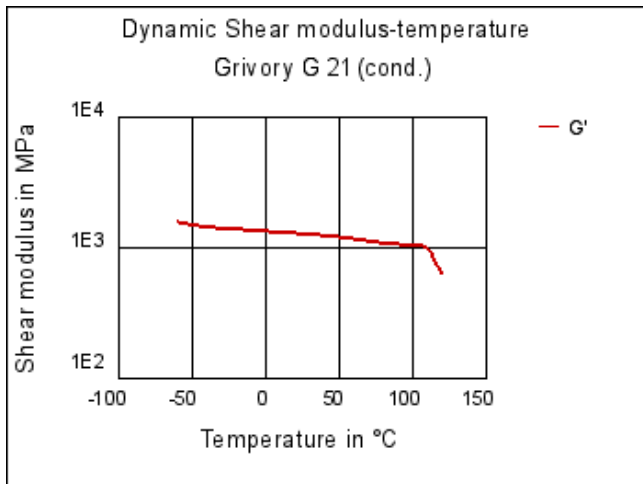
Viscosity-shear rate



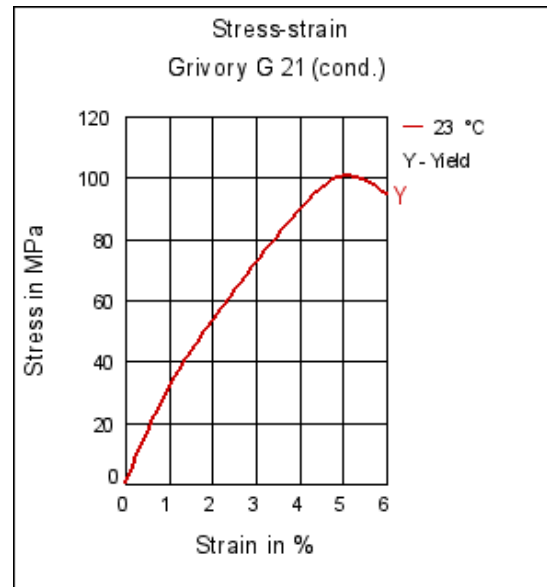
Shearstress-shear rate



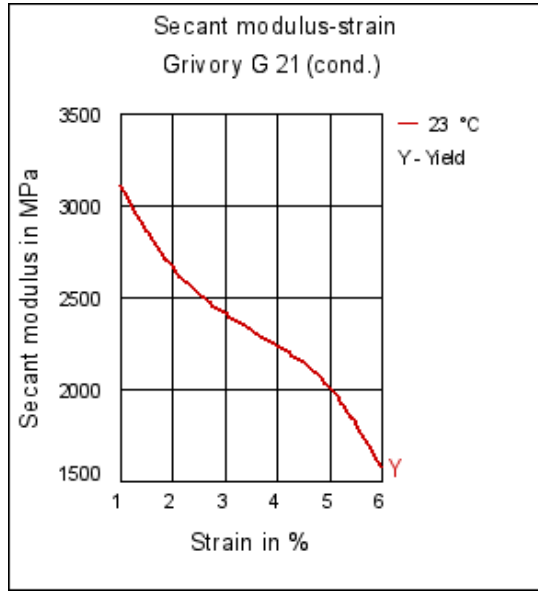
Dynamic Shear modulus-temperature



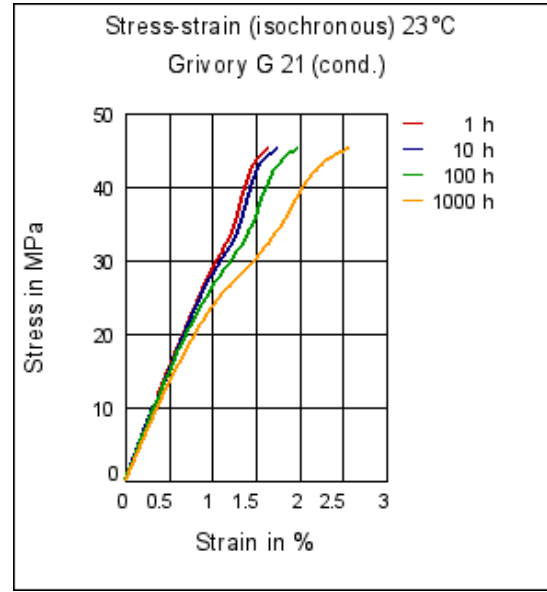
Stress-strain



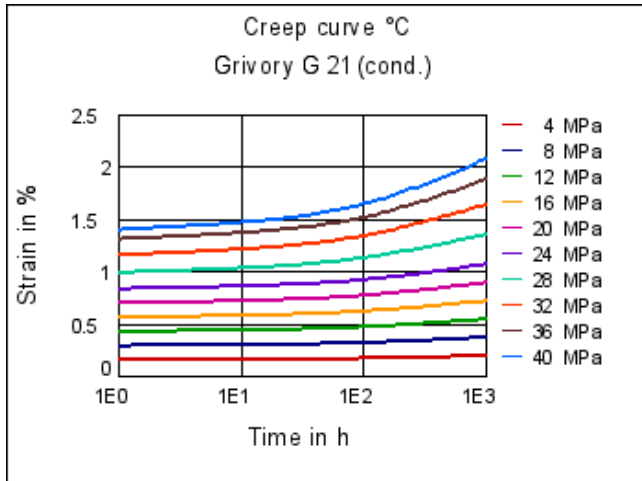
Secant modulus-strain



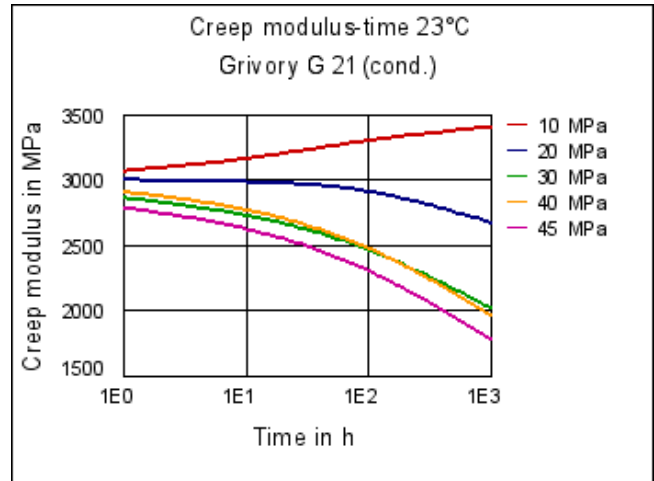
Stress-strain (isochronous) 23°C



Creep curve °C



Creep modulus-time 23°C

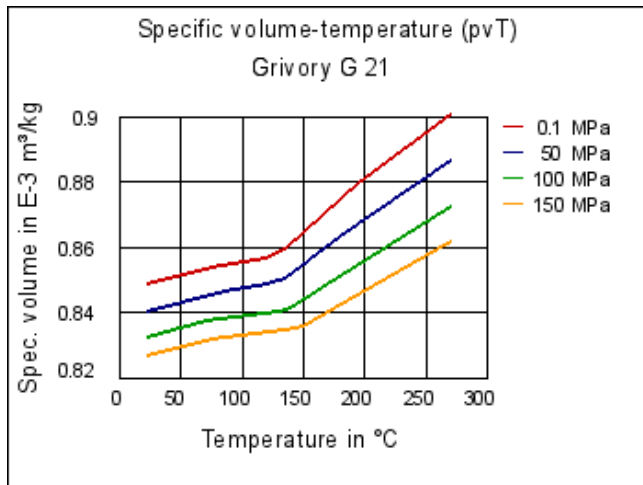


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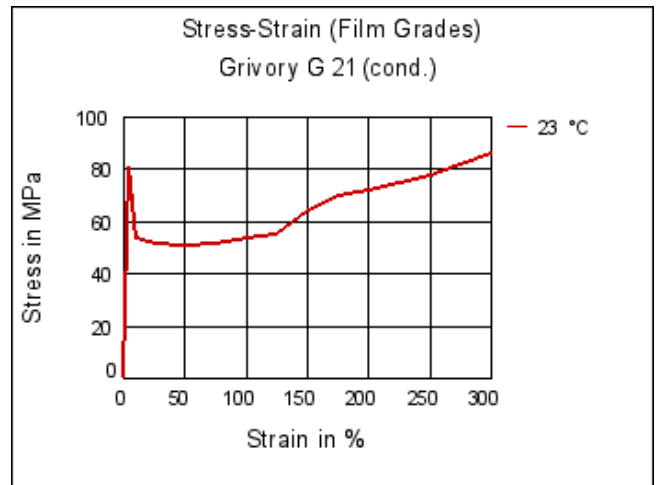
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Specific volume-temperature (pvT)



Stress-Strain (Film Grades)



Characteristics

Processing

Injection Molding, Extrusion - cast film, Extrusion - blow molding, 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, Partially aromatic Polyamide

Packaging

Blow moulded containers, Injectionstretchblowmoulded containers, Non oriented film, Oriented film, Paper coating, Tubes, Cosmetics / Personal care

Food Contact

EU Requirements, FDA

Biocompatibility

USP VI

Potable Water Contact

NSF 61