TEKSLIDE®

HIGH PERFORMANCE FLUOROPOLYMER MATERIALS

low friction | high wear resistance | chemical resistance | low maintenance

YOUR CHOICE FOR

FLUOROBASED PRODUCTS

4200
tons. of PTFE materials processed every year

350
people involved

2100
regular customers

58
supplied countries

7
branche offices and companies

GUARNIFLON® was established in 1982, enthusiasm, dedication and perseverance being the key factors which have allowed the company to evolve to the present status of worldwide leader in PTFE and fluorochemicals business field.
During recent years GUARNIFLON® has lead an International Group of companies which are continually integrating with the foreign markets, utilising the most updated marketing, technological tools and management flair.
TEKSLIDE is the GUARNIFLON® Trade Mark for High Performance Fluoropolymer Materials, a special group of PTFE compounds, developed by GUARNIFLON® R&D and among the best solutions today offered for applications where lubrication could be a tough problem.

The materials of **TEK**SLIDE products offer the best combination of properties in terms of low coefficient of friction and high were resistance in a wide variety of operating situations.

www.GUARNIFLON.com

TEKSLIDE
HIGH PERFORMANCE FLUOROPOLYMER MATERIALS

Beside the wide range of the existing **PTFE** products, GUARNIFLON® developed the **TEK**SLIDE products, **PTFE** compounded grades used in the processing of tapes, bearing tapes and machined parts retaining the usual and well known conventional **PTFE** advantages improved at the same time by some enhanced properties:

- **low coefficient of friction**
- **high resistance and hardness**
- **low cold flow**
- **extreme temperature applications**
- **very higt pressure resistance**

GUARNIFLON® **TEK**SLIDE products can be supplied etched in order to allow the most performing applications in the mechanical and other tribological fields.

Special compounds not included in this catalogue available on request.

TRIBOLOGICAL PROPERTIES
- Excellent performance in dry conditions at higt PV values, the product of operating pressure and surface velocity. The PV value in dry conditions (max 1.7 MPa x M/S) can be widely overcame in case of lubricated applications
- Extremely low coefficient of friction static and dynamic
- Extremely low stick-slip effect
- Excellent wear resistance even in dry applications

THERMAL PROPERTIES
- Stable behavior at operating temperatures from -240° C to +260° C and for short time up to +280° C
- Dimensional stability
- Excellent thermal dissipation capacity (specific grades)

CHEMICAL PROPERTIES
- Excellent chemical inertness
- **TEK**SLIDE materials can operate in salt water, in steam environment or aggressive and corrosive chemical environments
- Good gas proof properties (specific grades)

ELECTRICAL PROPERTIES

According to different grades of **TEK**SLIDE materials the following properties can be enhanced:
- Good dielectric properties (insulation)
- Excellent conductivity properties for antistatic applications

MECHANICAL PROPERTIES
- Extremely high PV and sliding behavior
- High load compression resistance (radial/axial)
- Low abrasive surface for applications on soft countersurfaces
- Excellent vibration dampening and noiseless

OTHER TYPICAL PROPERTIES
- Flexibility and fatigue stress resistance
- Some of the **TEK**SLIDE materials are atoxic and excellent for food contact and food industry applications

AVAILABLE MATERIALS

TEKSLIDE **G471**
dark Red

TEKSLIDE **G461**
yellow

TEKSLIDE **G729**
white

TEKSLIDE **G453**
black

TEKSLIDE **G412**
dark grey

TEKSLIDE **G418**
grey/blue

TEKSLIDE **G479**
light brown

TEKSLIDE **G464 | G488 | G417 | G548**
green/blue

TEKSLIDE **G416 | G506 | G458**
brown

AVAILABLE TECHNOLOGIES

AUTOMATIC MOULDING
custom bearings

COMPRESSION MOULDING
components, rods, tubes and sheets

EXTRUSION
rods and tubes

SKIVING
tapes and films

MACHINING
CNC and automatic turning custom made parts

PRESSURE/SINTERING MOULDING
billets for high performance tapes and films

MATERIALS
SELECTION GUIDE

PRODUCTS	G471	G461	G729	G453	G412	G418	G479	G464 G488 G417 G548	G416	G506	G458
Color	DarkRed	Yellow	White	Black	DarkGrey	Grey Blue	Light Brown	Green	Brown	Brown	Brown
Max Load "P" (psi)	1,000	750	1,000	1,000	1,000	1,000	1,200	1,000	1,000	1,200	1,200
MPa	6.9	5.2	6.9	6.9	6.9	6.9	8.3	6.9	6.9	8.3	8.3
Max Speed "V"(fpm)	400	400	400	400	400	400	400	400	400	400	400
m/s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Max "PV" (psi-fpm)	10,000	7,500	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
(MPa•m/s)	0,35	0,26	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35
Rb 25 & higher		X	X	X	X	X	X				
Rc 35 & higher	X							X	X	X	X
Painted metal and porcelain						X					
Aluminium		X					X				
Steam	X		X	X	X	X	X	X	X	X	X
Wet	X		X	X	X	X	X	X	X	X	X
Dry	X	X	X	X	X	X	X	X	X	X	X
Vacuum	X	X	X			X	X	X	X	X	X
Coefficient of friction	4	1	1	2	2	3	1	2	2	2	2
Creep resistance	4	3	4	4	4	4	4	5	5	5	5
Insulative prop.	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO	NO

G471 | Our standard **TEK**SLIDE bearing grade. Higt Creep and Abrasion resistance.
G461 | Lowest Coefficient of friction of **TEK**SLIDE series. Excellent insulator.
G729 | Widely used in the food process industry.
G453 | Very good operation in wet environments.
G412 | Good thermal and electrostatic dissipation.
G418 | Excellent abrasion resistance.
G479 | The best **TEK**SLIDE against alluminium surfaces.
G464, **G488**, **G417**, **G548** | Extensively used machine tool guide ways.
G416 | Guide ways and piston rings
G506 | Guide ways
G458 | Piston Rings

Bearing Tapes
All kinds of bearings are available in standard materials as well as G471, G461 and G464,
for the heaviest applications in the hydraulic, motion control and mechanical fields. They're made by special PTFE compounds and technologies, in order to fulfil GUARNIFLON®'s customers' requirements.

Special fillers are selected to enhance properties such as:

- wear resistance
- coefficient of friction
- compression strength

Thickness from mm. 1,5 to mm. 5
Width from mm. 4 to mm. 300

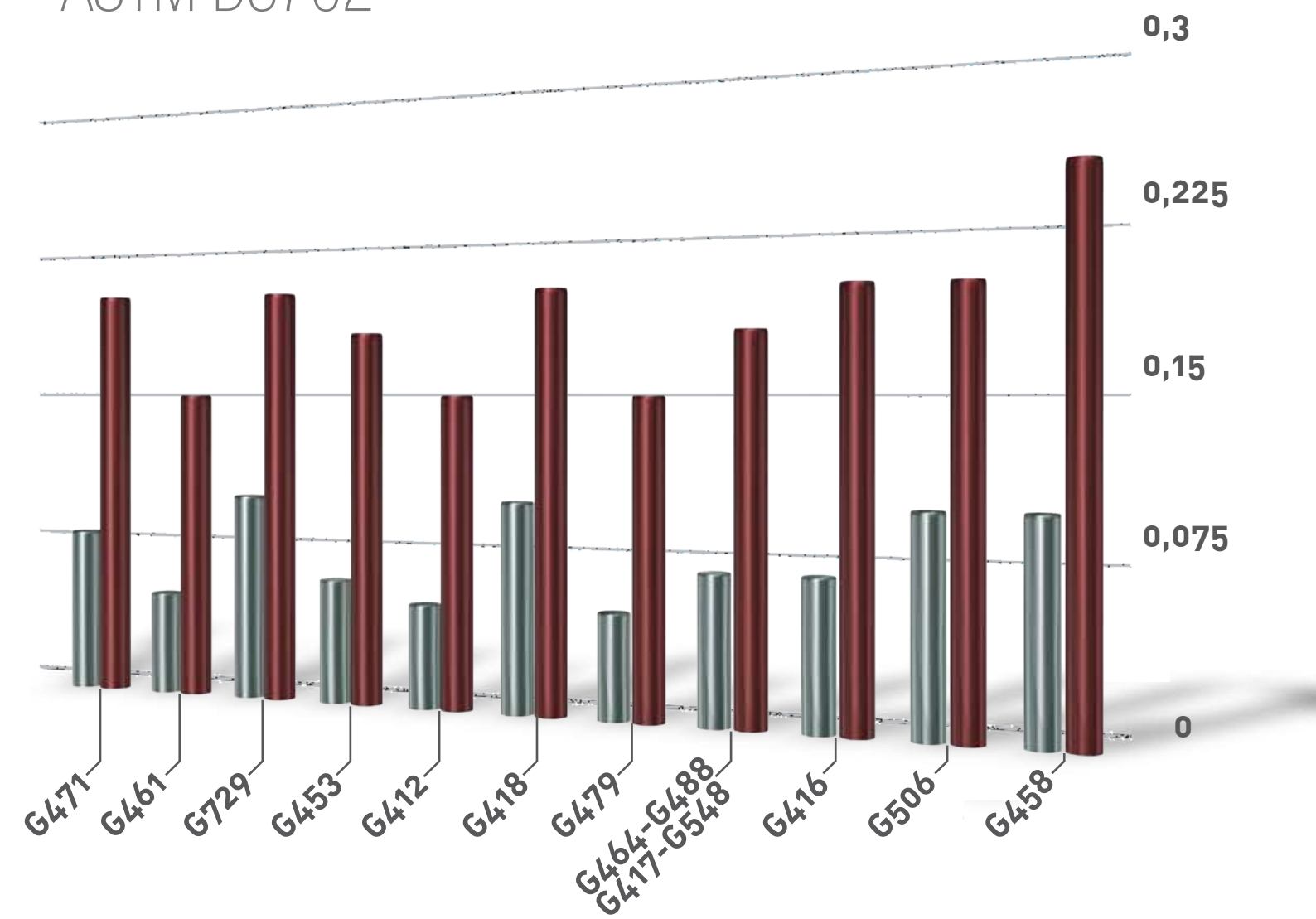
Rings
Whenever the chemical and thermal resistance of standard rings in static applications like static seals or flange connections is no longer sufficient, PTFE rings are the solution. Standard dimensions as well as special dimensions under customer specifications are available.

Tapes
Most materials can be skived thanks to the technologies available nowadays in GUARNIFLON® up to mm. 6 according to customers'needs.
TEKSLIDE tapes show excellent performance for applications where friction reduction is required.

Machined Products
Automatic turning machines as well as CNC machines can produce more than 1.5 million pieces per day. To ensure high and stable quality standards, GUARNIFLON® is running the electronic system S.P.C. (Statistical Process Control).

Etching Technology for Bounding Purposes
Guarniflon owns the most updated technologies dedicated to the etching process on semifinished and finished products.
The etching process of GUARNIFLON® is capable of providing uniform reactive surfaces.

DRY COEFFICIENT OF FRICTION - STATIC
ASTM D3702

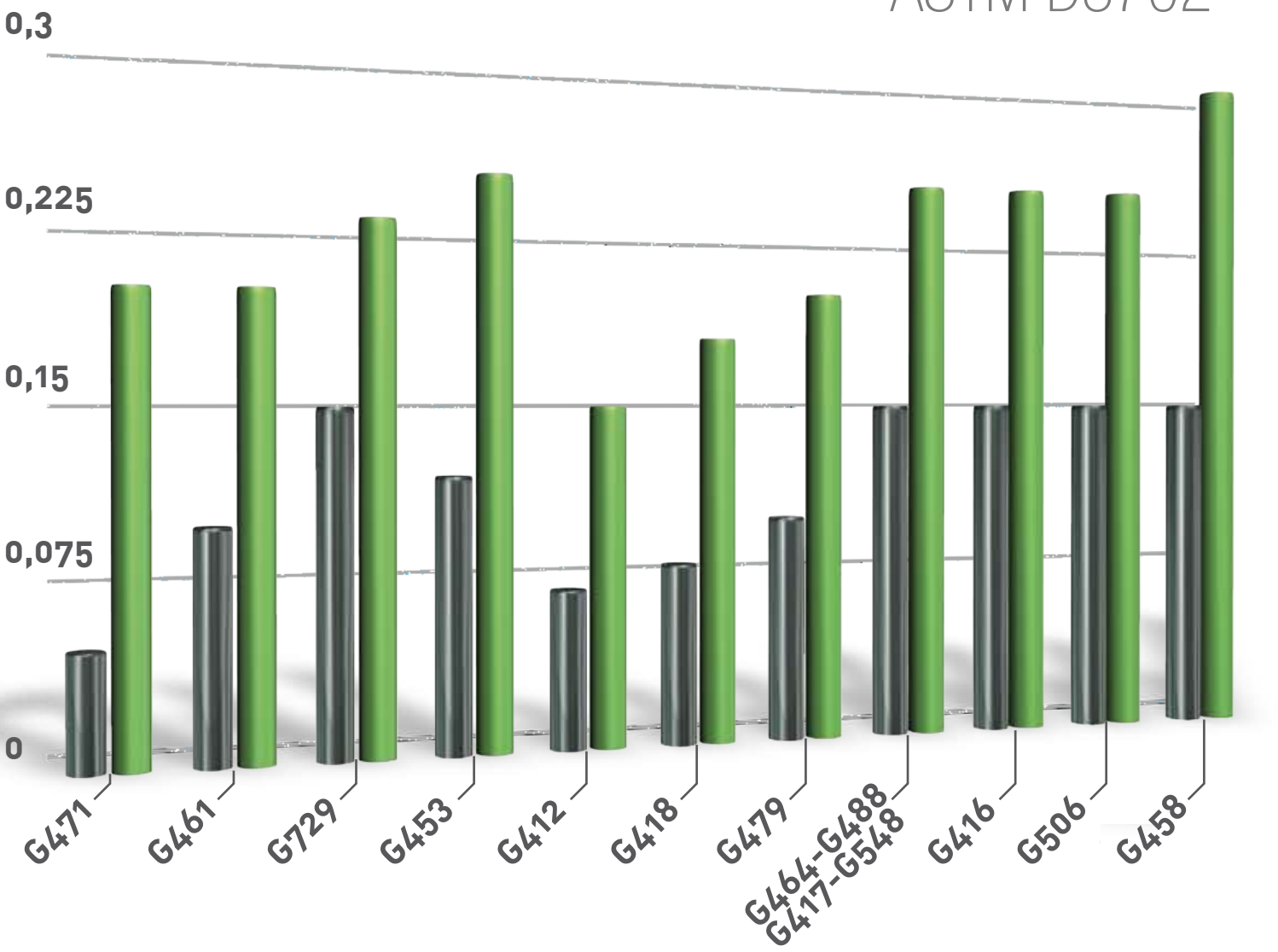


G471 | MIN 0.08 - MAX 0.20
G461 | MIN 0.05 - MAX 0.15
G729 | MIN 0.10 - MAX 0.20
G453 | MIN 0.06 - MAX 0.18
G412 | MIN 0.05 - MAX 0.15
G418 | MIN 0.10 - MAX 0.20
G479 | MIN 0.05 - MAX 0.15

G464 | MIN 0.07 - MAX 0.18
G488 | MIN 0.07 - MAX 0.18
G417 | MIN 0.07 - MAX 0.18
G548 | MIN 0.07 - MAX 0.18
G416 | MIN 0.07 - MAX 0.20
G506 | MIN 0.10 - MAX 0.20
G458 | MIN 0.10 - MAX 0.25

Note:
The values relevant to the dry coefficient of friction have to be considered as merely indicative, suitable only for a comparison of materials in the same operating conditions. They depend and are strongly influenced by the loads applied, speed, operating temperature, the environment conditions, the type of mated materials, the surface finish of the counterparts.

DRY COEFFICIENT OF FRICTION - DYNAMIC
ASTM D3702



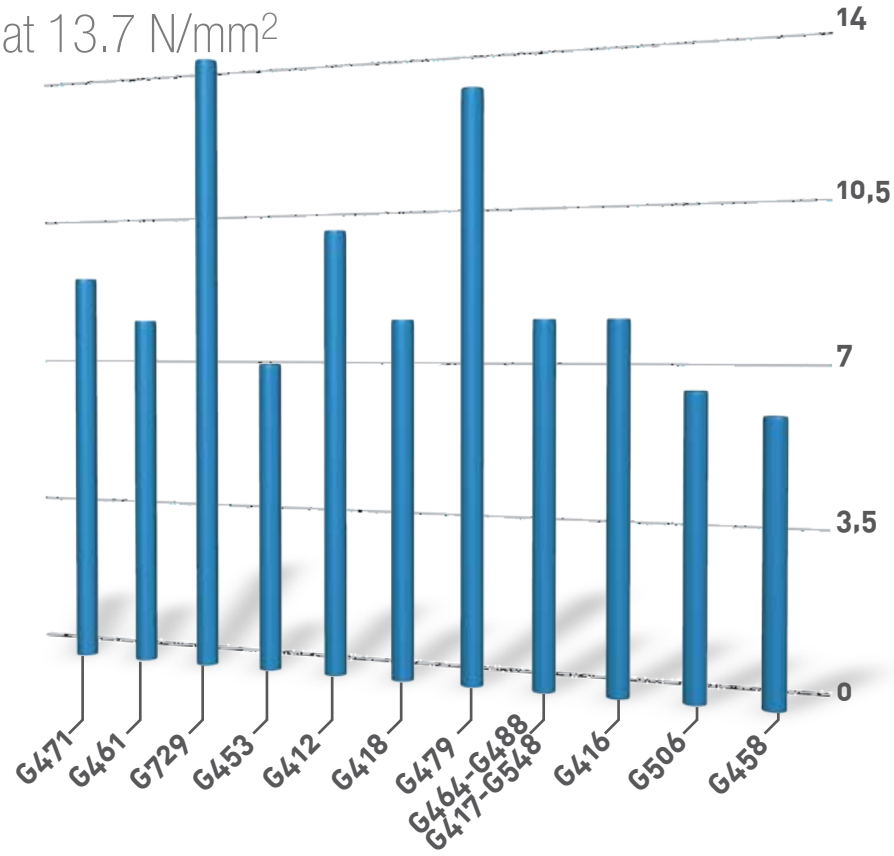
G471	MIN 0.05 - MAX 0.20	**G464**	MIN 0.15 - MAX 0.25
G461	MIN 0.10 - MAX 0.20	**G488**	MIN 0.15 - MAX 0.25
G729	MIN 0.15 - MAX 0.23	**G417**	MIN 0.15 - MAX 0.25
G453	MIN 0.12 - MAX 0.25	**G548**	MIN 0.15 - MAX 0.25
G412	MIN 0.07 - MAX 0.15	**G416**	MIN 0.15 - MAX 0.25
G418	MIN 0.08 - MAX 0.18	**G506**	MIN 0.15 - MAX 0.25
G479	MIN 0.10 - MAX 0.20	**G458**	MIN 0.15 - MAX 0.30

Note:
The values relevant to the dry coefficient of friction have to be considered as merely indicative, suitable only for a comparison of materials in the same operating conditions. They depend and are strongly influenced by the loads applied, speed, operating temperature, the environment conditions, the type of mated materials, the surface finish of the counterparts.

DEFORMATION UNDER LOAD
MAX TYPICAL VALUE

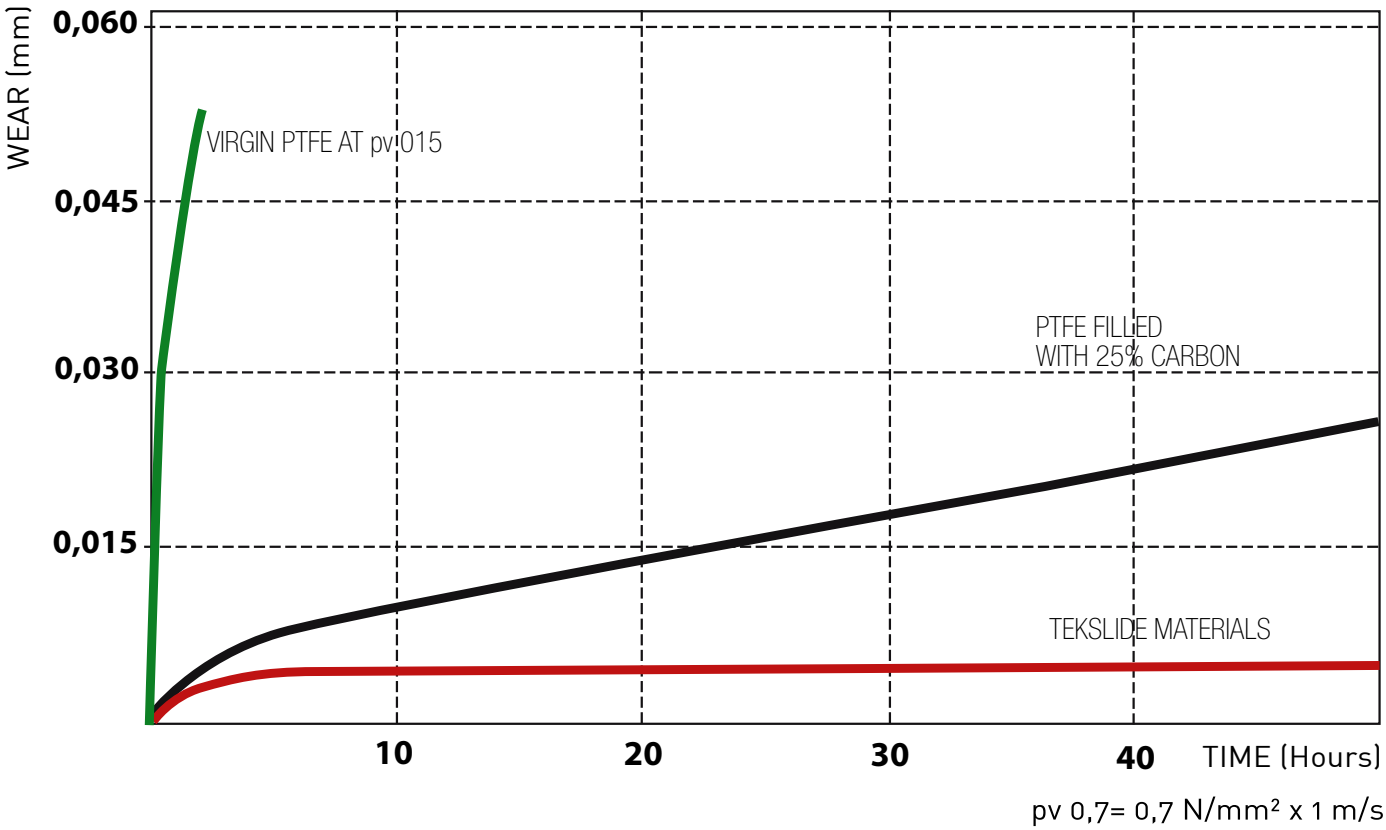
Room temperature 24 hours at 13.7 N/mm²
ASTM D621

Max Tipical Value %	
G471	9
G461	8
G729	14
G453	7
G412	10
G418	8
G479	13
G464	8
G488	8
G417	8
G548	8
G416	8
G506	6,5
G458	6



WEAR RATE COMPARISON AT PV 0,7

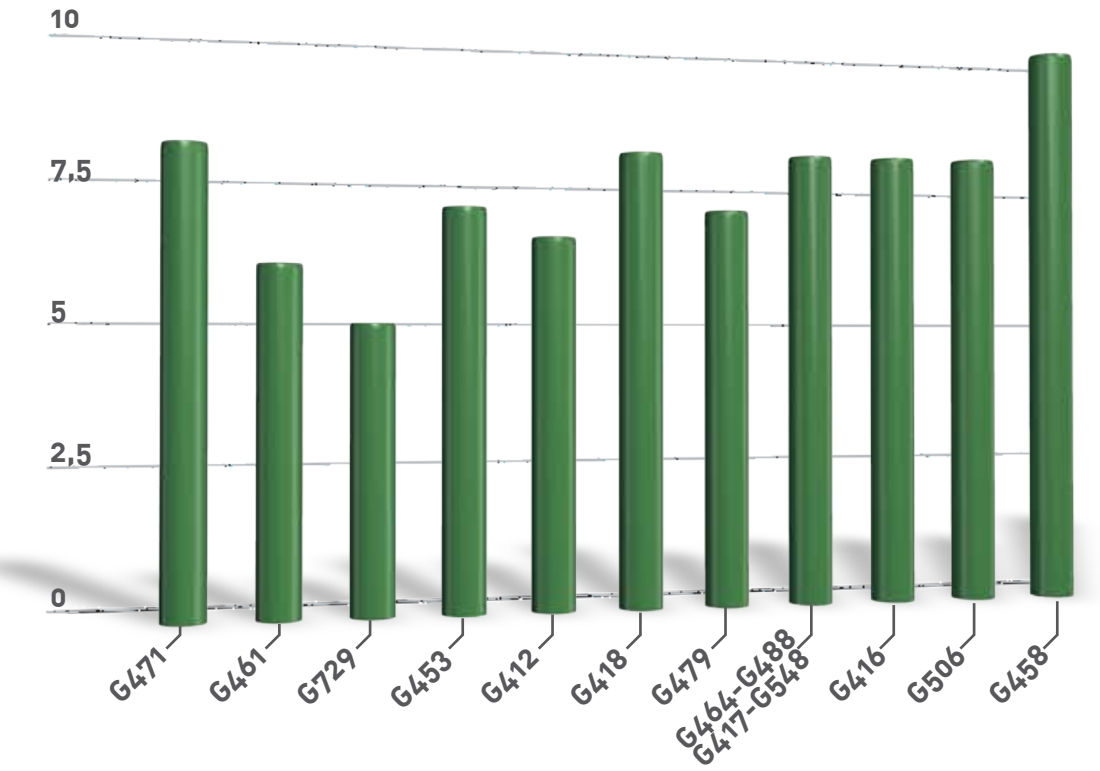
TEKSLIDE MATERIALS VS. TRADITIONAL PTFE



pv 0,7= 0,7 N/mm² x 1 m/s

COMPRESSIVE STRENGTH MIN. TYPICAL VALUE

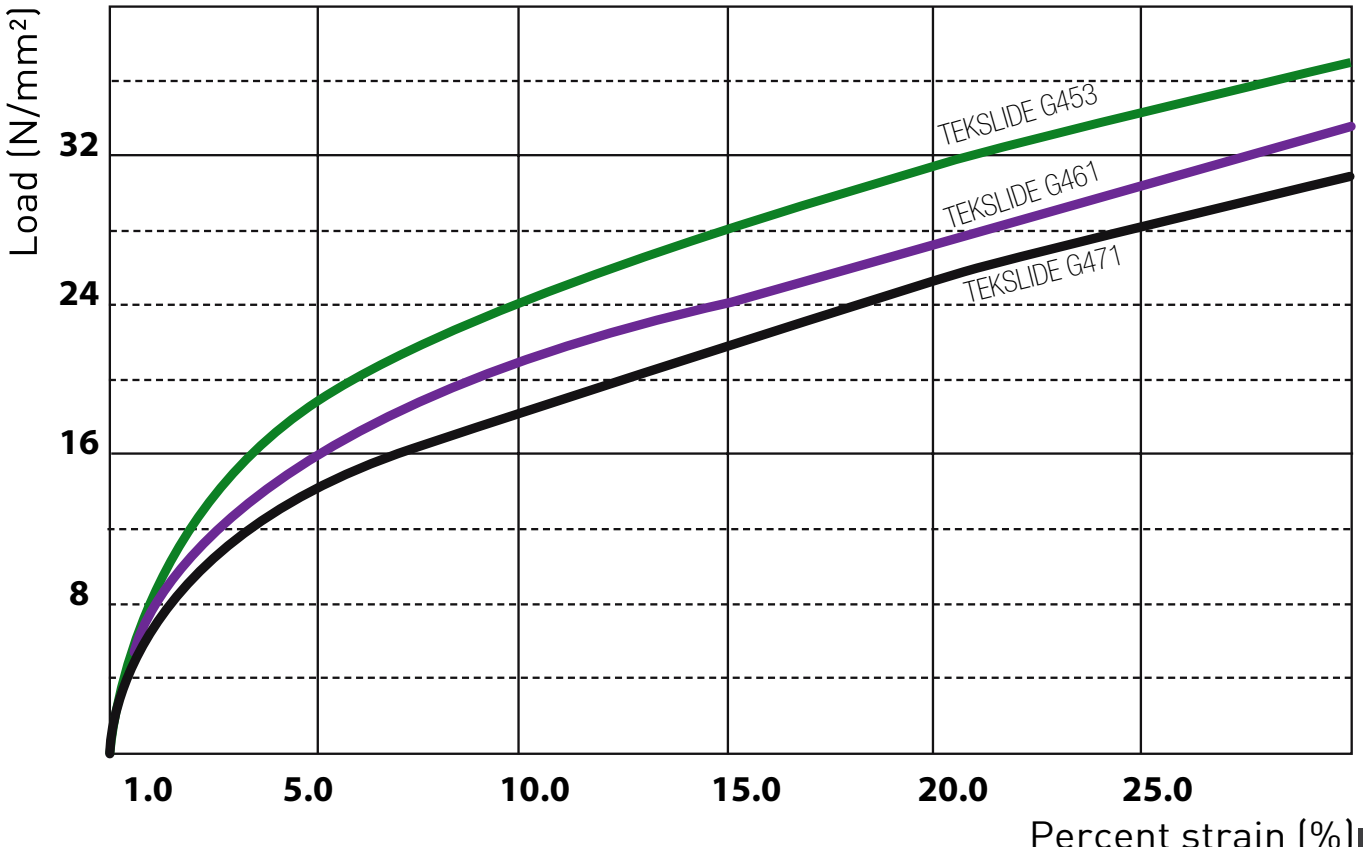
At 1% Deformation
ASTM D695



Min. Tipical Value	
G471	8
G461	6
G729	5
G453	7
G412	6,5
G418	8
G479	7
G464	8
G488	8
G417	8
G548	8
G416	8
G506	8
G458	10

COMPARISON OF COMPRESSIVE LOAD

VS. DEFORMATION OF SOME **TEK**SLIDE GRADES



PRODUCTS

TEKSLIDE G471

General purpose dry bearing material for bushing and sliding pads for mechanical applications in general. Slide ways for machine tools.
High wear and abrasion resistance, good compressive properties. Suitable for the majority of dry bearing applications against hard counter-surfaces. Good electrical insulating properties.

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Extruded tubes
Extruded rods
Skived tapes
Machined parts
Piston rings
Bearing tapes

APPLICATIONS
Compressors
Pumps
Wear bands
Automotive
Insulators
Linear Slides

TECHNICAL DATA SHEET TEKSLIDE G471

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	2,20 - 2,30
Hardness - Shore D	/	ASTM D2240	≥ 60
Tensile strength CD	N/mm^2	ASTM D4745	≥ 14
Elongation at break CD	%	ASTM D4745	≥ 170
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 8
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤ 9
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	≤ 4
Dynamic Coefficient of friction (PV = 0,7 N/mm^2 •m/s)	/	ASTM D3702	0,05 - 0,20
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,010 - 0,020
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	9 - 11

TEKSLIDE G461

The lowest coefficient of friction in dry applications. Suitable for the machining of bearings and other sliding parts for the food industry or for any other use in contact with soft materials such as aluminium, copper alloys, inox steel, polymeric substrates, etc. Very good wear resistance, compression resistance, high flexibility and tensile strength, excellent insulating properties. It can be used in contact with food products.

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Skived tapes
Machined parts
Piston rings
Bearing tapes

APPLICATIONS
Air Compressors
Wear bands
Automotive
Insulators
Linear Slides
Mechanical textile

TECHNICAL DATA SHEET TEKSLIDE G461

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	1,85 - 2,05
Hardness - Shore D	/	ASTM D2240	≥ 55
Tensile strength CD	N/mm^2	ASTM D4745	≥ 15
Elongation at break	%	ASTM D4745	≥ 250
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 6
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤ 8
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	≤ 6
Dynamic Coefficient of friction (PV = 0,7 N/mm^2•m/s)	/	ASTM D3702	0,10 - 0,20
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,010 - 0,020
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	9 - 11

TEKSLIDE G729

Its excellent load and wear characteristics together with the capability to stand a wide range of temperatures, make Tekslide G729 the perfect material for bearings for food and pharmaceutical applications.
High compatibility with a wide range of mating surfaces.
Tekslide G729 is unaffected by all common acids, bases and solvents.

PRODUCTS
Moulded tubes
Moulded rods
Extruded tubes
Extruded rods
Skived tapes
Machined parts
Piston rings
Seals

APPLICATIONS
Compressors
Pumps
Insulators
Wear bands
Automotive
Linear Slides

TECHNICAL DATA SHEET TEKSLIDE G729

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	2,17 - 2,25
Hardness - Shore D	/	ASTM D2240	≥ 55
Tensile strength CD	N/mm^2	ASTM D4745	≥ 14
Elongation at break	%	ASTM D4745	≥ 200
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 5
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤ 14
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	6 - 9
Dynamic Coefficient of friction (PV = 0,7 N/mm^2 •m/s)	/	ASTM D3702	0,15 - 0,23
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,015 - 0,023
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	7 - 10

TEKSLIDE G453

For bearing and sliding parts. Piston bearer rings for no-lubricated reciprocating compressors and for automotive applications.
Very good load carrying properties combined with low friction and high wear resistance. Good thermal and electrostatic dissipation.
Suitable for wet operating conditions and for contact with corrosive agents.

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Extruded tubes
Extruded rods
Skived tapes
Machined parts
Piston rings
Bearing tapes
Cup seals

APPLICATIONS
Compressors
Pumps
Wear bands
Automotive
Linear Slides
Plating tanks
Valve seats

TECHNICAL DATA SHEET TEKSLIDE G453

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	2,05 - 2,11
Hardness - Shore D	/	ASTM D2240	≥ 60
Tensile strength CD	N/mm^2	ASTM D4745	≥ 13
Elongation at break	%	ASTM D4745	≥ 70
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 7
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤ 7
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	≤ 5
Dynamic Coefficient of friction (PV = 0,7 N/mm^2 •m/s)	/	ASTM D3702	0,12 - 0,25
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,010 - 0,020
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	10 - 12

TEKSLIDE G412

Non-abrasive PTFE compound for softer mating surfaces, such as stainless steel.
High resistance to deformation, extremely low coefficient of friction and good thermal and electrostatic dissipation. Use in water reduces the wear rate.
Not suggested for using in ultra-dry, vacuum applications, or where electrical insulation is desired.

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Extruded tubes
Extruded rods
Skived tapes
Machined parts
Piston rings
Bearing tapes

APPLICATIONS
Compressors
Pumps
Automotive-Lip seals
Linear Slides

TECHNICAL DATA SHEET TEKSLIDE G412

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	2,10 - 2,15
Hardness - Shore D	/	ASTM D2240	≥ 55
Tensile strength CD	N/mm^2	ASTM D4745	≥ 15
Elongation at break	%	ASTM D4745	≥ 170
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 6,5
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤ 10
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	≤ 6
Dynamic Coefficient of friction (PV = 0,7 N/mm^2 •m/s)	/	ASTM D3702	0,07 - 0,15
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,015 - 0,025
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	12 - 13

TEKSLIDEG418

The appropriate choice for applications in hydrogen and natural gas compressors, thanks to its excellent wear resistance, especially in extremely dry environments.
Its almost universal chemical resistance enables it to withstand corrosives and acids sometimes present in trace amounts in these environments.

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Extruded tubes
Extruded rods
Skived tapes
Machined parts
Piston rings
Bearing tapes

APPLICATIONS
Compressors
Pumps
Wear bands
Automotive
Linear Slides
Insulators

TECHNICAL DATA SHEET TEKSLIDE G418

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	2,20-2,30
Hardness - Shore D	/	ASTM D2240	≥ 55
Tensile strength CD	N/mm^2	ASTM D4745	≥ 15
Elongation at break	%	ASTM D4745	≥ 200
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 8
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤ 8
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	≤ 4
Dynamic Coefficient of friction (PV = 0,7 N/mm^2 •m/s)	/	ASTM D3702	0,08 - 0,18
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,015 - 0,021
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	9 - 12

TEKSLIDE G479

It combines low deformation under load with extremely good chemical resistance. Particularly suitable for operating against aluminium substrates, stainless steel, bronze, polymeric substrates. Composition based on ingredients approved for food contact, in accordance with the EEC regulations, self-lubricating properties (no lubrication needed), high wear resistance, load carrying capabilities, no relative abrasiveness, outstanding chemical resistance, very wide range of operating temperatures (from -200°C up to + 260°C). Very low coefficient of friction. Not recommended for use with alkalis.

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Skived tapes
Machined parts
Piston rings
Bearing tapes

APPLICATIONS
Air Compressors
Automotive
Insulators
Linear Slides
Mechanical textile
Food processing machines
Cosmetic machines
Blistering machines

TECHNICAL DATA SHEET TEKSLIDE G479

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	1,92 - 2,06
Hardness - Shore D	/	ASTM D2240	≥ 55
Tensile strength CD	N/mm^2	ASTM D4745	≥ 14
Elongation at break CD	%	ASTM D4745	≥ 220
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 7
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤13
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	≤9
Dynamic Coefficient of friction (PV = 0,7 N/mm^2 •m/s)	/	ASTM D3702	0,10 - 0,20
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,011 - 0,018
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	9 - 12

TEKSLIDE G464 - G488 - G417 - G548

BRONZE FILLED COMPOUNDS

G464 | G488 | G417 | G548

TEKSLIDE brand has a various range of bronze filled PTFE compounds , each having a unique blend of additional components (inorganic ingredients) produced in accordance to specific market requirements.
Special fillers to satisfy the most arduos applications and available in a wide choice of colors, such as brown, dark green, light green and blue.
Excellent mechanical properties, perfect for machine tool applications.
Engineered compounds developed for use in linear bearing elements and to avoid metal-to-metal sliding contacts. Self lubricating, wear resistant materials providing low friction, stick-slip free operation, better positioning accuracy and repeatability, vibration dampening, long life with minimum wear.
They are dimensionally stable, maintenance free and can be operated with or without lubrication.

TECHNICAL DATA SHEET TEKSLIDE G464 - G488 - G417 - G548

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm³	ASTM D792	3,00 - 3,20
Hardness - Shore D	Points	ASTM D2240	≥ 58
Tensile strength CD	N/mm²	ASTM D4745	≥ 20
Elongation at break CD	%	ASTM D4745	≥ 250
Compressive strength at 1% deformation	N/mm²	ASTM D695	≥ 8
Deformation under load at room temperature 24 hours at 13,7 N/mm² CD	%	ASTM D621	<8
Permanent deformaton as above after releasing of 24 hours at room temeperature CD	%	ASTM D621	<4
Dynamic Coefficient of friction (PV = 0,7 N/mm² •m/s)	/	ASTM D3702	0,15 - 0,25
Wear factor (PV = 0,7 N/mm² •m/s)	µm/h•N/mm² •m•min	ASTM D3702	0,010 - 0,030
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	8 - 10

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Extruded tubes
Extruded rods
Skived tapes
Machined parts
Piston rings
Bearing tapes

APPLICATIONS
Compressors
Pumps
Automotive
Linear Slides
Wear bands
Insulators
Machine Tools

TEKSLIDE G416 - G506 - G458

BRONZE FILLED COMPOUNDS

The 3 additional Tekslide materials belonging to the PTFE bronze compounds group have technical behavioural differences according to the below data sheets.
Specific fillers to satisfy the heaviest applications, excellent mechanical properties, perfect for machine tool applications.
Engineered compounds developed for use in linear bearing element and to avoid metal-to-metal sliding contacts. Self lubricating, wear resistant materials providing low friction, stick-slip free operation, better positioning accuracy and repeatability, vibration dampening, long life with minimum wear.
They are dimensionally stable, maintenance free and can be operated with or without lubrication.

PRODUCTS
Moulded tubes
Moulded rods
Moulded sheets
Extruded tubes
Extruded rods
Skived tapes
Machined parts
Piston rings
Bearing tapes

APPLICATIONS
Compressors
Pumps
Automotive
Linear Slides
Wear bands
Insulators
Machine Tools

TECHNICAL DATA SHEET TEKSLIDE G416 - G506 - G458

TEKSLIDE G416

Properties	Unit	Method	Moulded
PHYSICAL - MECHANICAL			
Density	g/cm^3	ASTM D792	2,98 - 3,16
Hardness - Shore D	/	ASTM D2240	≥ 58
Tensile strength CD	N/mm^2	ASTM D4745	≥ 18
Elongation at break CD	%	ASTM D4745	≥ 200
Compressive strength at 1% deformation	N/mm^2	ASTM D695	≥ 8
Deformation under load at room temperature 24hours at 13,7 N/mm^2	%	ASTM D621	≤8
Permanent deformaton as above after releasing of 24 hours at room temeperature	%	ASTM D621	≤5
Dynamic Coefficient of friction (PV = 0,7 N/mm^2 •m/s)	/	ASTM D3702	0,15 - 0,25
Wear factor (PV = 0,7 N/mm^2 •m/s)	µm/h•N/mm^2 •m•min	ASTM D3702	0,010 - 0,030
THERMAL			
Service Temperature (min-max)	°C	/	- 200 / + 260
Thermal expansion coefficient (linear) 25 - 100°C	10^{-5}/°C	ASTM D696	8 - 11

TEKSLIDE G506

Unit	Method	Moulded
g/cm³	ASTM D792	3,41 - 3,61
/	ASTM D2240	≥ 60
N/mm²	ASTM D4745	≥ 15
%	ASTM D4745	≥ 200
N/mm²	ASTM D695	≥ 8
%	ASTM D621	≤6,5
%	ASTM D621	≤3
/	ASTM D3702	0,15 - 0,25
µm/h•N/mm²•m•min	ASTM D3702	0,010 - 0,030
°C	/	- 200 / + 260
10^{-5}/°C	ASTM D696	7 - 9

TEKSLIDE G458

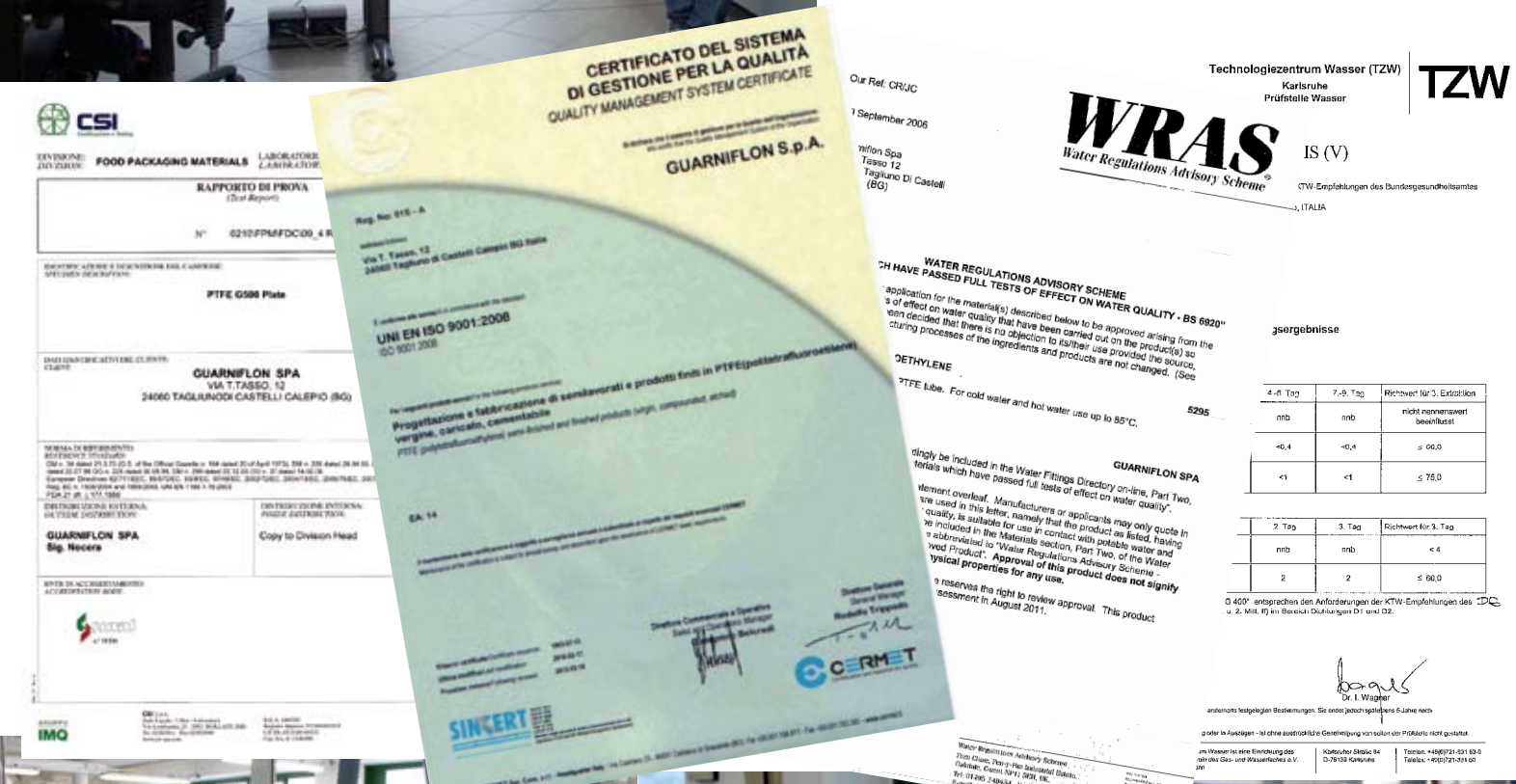
Unit	Method	Moulded
g/cm³	ASTM D792	3,75 - 3,95
/	ASTM D2240	≥ 62
N/mm²	ASTM D4745	≥ 15
%	ASTM D4745	≥ 100
N/mm²	ASTM D695	≥ 10
%	ASTM D621	≤6
%	ASTM D621	≤2,5
/	ASTM D3702	0,15 - 0,30
µm/h•N/mm²•m•min	ASTM D3702	0,010 - 0,030
°C	/	- 200 / + 260
10^{-5}/°C	ASTM D696	7 - 8

QUALITY MANAGEMENT
R&D TEAM

Guarniflon have been Quality Certified since 1993, certificate n. 015, one of the first in its own field.

Nowadays Guarniflon is UNI EN ISO 9001 certified by the certification body Cermet.

Guarniflon policy implies a high powered and experienced R & D Team continuously improving and developing day by day new solutions for new applications.



www.GUARNIFLON.com

TEKSLIDE
HIGH PERFORMANCE FLUOROPOLYMER MATERIALS

YOUR CHOICE FOR FLUOROBASED PRODUCTS

GUARNIFLON®

GUARNIFLON INTERNATIONAL NETWORK

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Notes:

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