



PACTUMAX

INTERNATIONAL PTE LTD

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Welcome to our new issue of Pactumax Monthly Advanced Product Alert for the Year 2022 – keeping you informed of new product and materials advancements.

This month's featured items are **Duratron® T4203 PAI** and **Teflon® (Natural/CA25/GF25)**.

Duratron® T4203 PAI has the most superior impact strength and the highest elongation among all the other Duratron® T PAI grades. Duratron® T4203 PAI has dimensional stability, excellent machinability and high temperature resistance.

Teflon® (Natural/CA25/GF25) can be commonly known as PTFE (Polytetrafluoroethylene) is a fluorocarbon-based polymer. Teflon® (Natural/CA25/GF25) has high chemical and heat resistance, weather resistance and electrical thermal insulation.

Remember, Pactumax is ***GROWING*** – we are now your **One-Stop Source** for **all** your materials and products' needs!

ADVANCED PRODUCT ALERT OF THE MONTH

Duratron® T4203 PAI

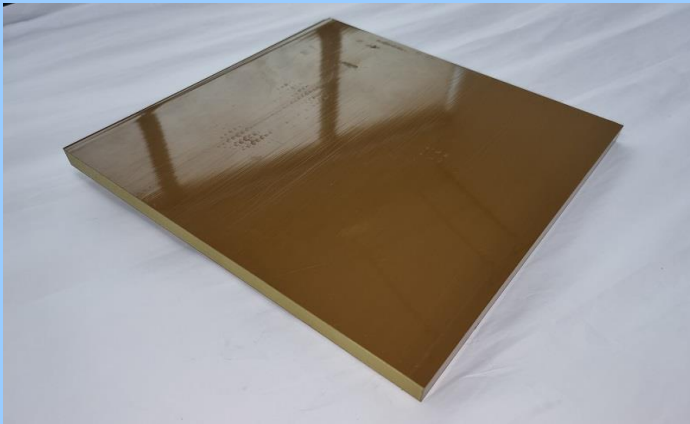
Manufactured by



PRODUCT OVERVIEW

Duratron® T4203 PAI has the most superior impact strength and the highest elongation among all the other Duratron® T PAI grades. **Duratron® T4203 PAI** has dimensional stability, excellent machinability and high temperature resistance. It is commonly used to make precision parts industries that manufactures high-technological equipment. **Duratron® T4203 PAI** is able to withstand high loads over a wide range of temperatures which is suitable for structural components such as seal rings and linkages. It is also suitable for wear applications that involves abrasive wearing and impact loading.

Duratron® T4203 PAI



PRODUCT COLORS

- Yellow-Ochre

ADVANTAGES

- High Stiffness/ Strength
- Wide Operating Range (-190 °C to +260 °C)
- Dimensional Stability
- Excellent Chemical Resistance
- Excellent Creep Resistance
- Good Radiation Resistance
- Super Electrical/ Dielectric Performance

APPLICATIONS

- Connectors
- Switches
- Relays
- Thrust Washers
- Valve Seats
- Piston Rings
- Mechanical Linkages
- Bushings
- Electrical and Thermal Insulators

TYPICAL PROPERTIES OF DURATRON® T4203 PAI

General Properties	ASTM or UL TEST	DURATRON® T4203 PAI Typical Values
PHYSICAL		
Specific Gravity (g/cm ³)	D792	1.41
Water Absorption, 24 hrs (%)	D570	0.4
MECHANICAL		
Tensile Strength (psi)	D638	20,000
Tensile Modulus (psi)	D638	600,000
Tensile Elongation at Break (%)	D638	29.2
Flexural Strength (psi)	D790	24,000
Flexural Modulus (psi)	D790	600,000
Compressive Strength (psi)	D695	24,000
Hardness, Rockwell	D785	120
IZOD Notched Impact (ft-lb/in)	D256	2
THERMAL		
Coeff. of Thermal Expansion (x10 ⁻⁵ in./in./°F)	E831	2.1
Heat Deflection Temp (°F/ °C) @ 264 psi	D648	532/280
Glass Transition Temp (°F/°C)	DMA	527/280
Max Operating Temp (°F/ °C)	-	500/250
Thermal Conductivity (BTU-in/ft ² -hr- °F)	-	1.8
Flammability Rating	UL94	V-0
ELECTRICAL		
Electric Strength (V/mil)	D149	580
Dielectric Constant at 1 MHz	D150	4.2
Dissipation Factor at 1 MHz	D150	0.026
Surface Resistivity (ohm/sq)	ANSI/ ESD STM 11.11	> 10 ¹³
Volume Resistivity (ohm.cm)	IEC 60093	-

Teflon® (Natural/CA25/GF25)

Manufactured by **XIFLON**

PRODUCT OVERVIEW

Teflon® (Natural/CA25/GF25) can be commonly known as PTFE (Polytetrafluoroethylene) is a fluorocarbon-based polymer. **Teflon® (Natural/CA25/GF25)** has high chemical and heat resistance, weather resistance and electrical thermal insulation. Other properties low and high temperature capability and low friction. Applications includes seals, gaskets, insulator transformers, bearings, etc.

Teflon® (Natural/CA25/GF25)



PRODUCT COLORS

- Black (PTFE 25% Carbon-Filled)
- White (PTFE Natural, PTFE 25% Glass-Filled)

ADVANTAGES

- Extreme resistance to temperatures -200°C to 260°C
- Intrinsically non-flammable
- Extremely resistant to chemicals and ultraviolet radiation
- Water-repellent
- Excellent electrical Insulation
- Non-stick properties
- Lowest coefficient of friction than any other known plastic material

APPLICATIONS

- Seals
- Gaskets
- Insulator Transformers
- Bearings
- Surface Coatings
- Wire Insulation
- Valves

TYPICAL PROPERTIES OF TEFLON® (NATURAL/CA25/GF25)

General Properties	ASTM or UL TEST	TEFLON® (NATURAL) Typical Values	TEFLON® CA25 (Carbon- Filled) Typical Values	TEFLON® GF25 (Glass- Filled) Typical Values
PHYSICAL				
Density (g/cm ³)	D792	2.13 – 2.19	2.08	2.25
Water Absorption, 24 hrs (%)	D570	< 0.01	0.05	0.02
MECHANICAL				
Tensile Strength (MPa)	D638	> 20	1,900	2,100
Tensile Modulus (MPa)	D638	-	-	-
Tensile Elongation at Break (%)	D4894	> 200	75	270
Flexural Strength (psi)	D790	-	2,300	1,950
Flexural Modulus (psi)	D790	-	160,000	190,000
Compressive Strength (MPa)	D695	>4	1,700	1,000
Compressive Modulus (psi)	D695	-	87,000	110,000
Hardness, Shore D	D2240	>54	D62	D60
IZOD Notched Impact (ft-lb/in)	D256	-	-	-
THERMAL				
Coeff. of Thermal Expansion (x10 ⁻⁵ in./in./°C)	D696	12-15	6	6.4
Heat Deflection Temp (°F/ °C) at 264 psi	D648	-	150/65	150/65
Melting Temp (°F/°C)	D3418	-	635/335	635/335
Max Operating Temp (°F/ °C)	-	-	500/260	500/260
Thermal Conductivity (W/m.K)	C177	0.34	4.5	3.1
Flammability Rating	UL94	V-0	V-0	V-0
ELECTRICAL				
Dielectric Strength (kV/mm)	D149	>30	-	-
Dielectric Constant at 1 MHz	D150	-	-	2.4
Dissipation Factor at 1 MHz	D150	-	-	0.05
Volume Resistivity (ohm.cm)	D257	>10 ¹⁸	10 ⁴	>10 ¹⁵
Surface Resistivity (ohm)	D257	>10 ¹⁷	-	-

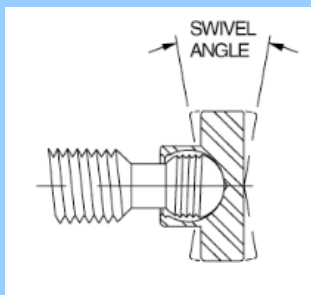
CL-2-JFL Jig Feet Leveling

Manufactured by



Carr Lane Manufacturing is well known in the industry for its industrial parts and standard tooling components. It is specially known for jig & fixture tooling components. Carr Lane Manufacturing has a huge variety of products ranging up to 100,000 industrial parts, components, tools & accessories, toggle clamps, handles, knobs, etc.

CL-2-JFL Jig Feet Leveling



2D Drawing

ITEM	MATERIAL	HEAT TREAT	FINISH	DFARS	RoHS
Body	1215 Steel	Carburized-hardened	Zinc plated yellow chromate	✓	✓
Pad	1215 Steel	-	Zinc plated yellow chromate	✓	✓

Material Table

CL-2-JFL Jig Feet Leveling has a medium-duty leveling foot that is made of high-quality material. It is designed to have a removable pad and a handy hex socket to allow the user to adjust easily from the stud end. **CL-2-JFL Jig Feet Leveling** has a pad that is engineered to rotate and pivots freely with a 20° total swivel angle. This jig is available with thread sizing ranging from 1/2"-13 to 1"-8 (M12 to M24 in metric) and it is manufactured in the USA.

In addition, **CL-2-JFL Jig Feet Leveling** has a hex socket that is also used for a screw clamp. Furthermore, these leveling feet is designed to incorporate a patented left-hand-thread swivel-foot system. The ball part end of the body is threaded which allow easy removal or installation. Once the ball part is threaded pass the foot threads, the foot can rotate and pivot freely (20° Total Angle).

CL-2-JFL Jig Feet Leveling's foot thread is designed to be left-handed to prevent backout from occurring accidentally during operation use.

CL-2-JFL Jig Feet Leveling body and pad is made up of 1215 Steel and finished with Zinc plated yellow chromate. Only the body is heat threated to carburized-hardened

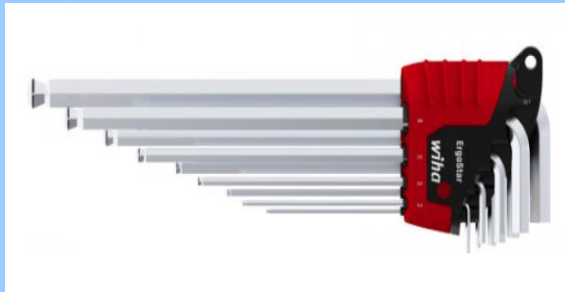
L-key Set in ErgoStar Holder

Manufactured by



Wiha seeks to make daily life much easier for users with a product assortment of innovative hand tool solutions geared towards user needs. This is why Wiha develops, designs and manufactures products that meet the strictest requirements for quality, functionality, durability and ergonomic design. As a trusted, strategic partner of specialist retailers, Wiha offers a wide range of quality products for the professional segment.

L-key Set in ErgoStar Holder



Hexagonal ball end MagicRing® matt chrome-plated 10-pcs

L-keys is known to have lot of difficulty to remove or return the L-keys from their respective holders. With the **L-key Set in ErgoStar Holder**, it has effectively eliminated the difficulty of swapping in and out of the L-keys. The holder is designed to turn a single L-key which will cause all other L-keys to turn to the same angle which will allow the user to remove the single L-key easily.

L-key Set in ErgoStar Holder is equipped with a clamping mechanism in the holder which ensure that all the L-keys are kept in place and does not fall out of the holder even if the holder is opened or closed.

In addition, the L-keys has a stainless-steel made MagicRing® screw-holding spring which will hold all standard-made hex screws securely in place regardless of what material the screw is made of. This will enable the user to effectively and efficiently remove sunken screws at a 25° angle down during fastening on inserting of the screw.

For more information on our products and availability, please do not hesitate to contact our nearest Pactumax International office, or e-mail us at sales@pactumax.com. We look forward to hearing from you!

Highlights from the next issue of Pactumax Monthly Advanced Product Alert – Vespel SCP 5000 & Ertalyte PET-P/TX, Lanyard; Hole Size= 5.3 mm, 0.21 inch (Reid Supply) & Soft-faced hammer "Safety" soft/medium soft (wiha). Stay tuned!