



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 **KETRON® PEEK CA30%** and **ERTACETAL® H**.

KETRON® PEEK CA30% reinforced grade has high stiffness, mechanical strength as well as creep resistance.

ERTACETAL® H is a homopolymer acetal grade. It provides higher stiffness, hardness and mechanical strength.

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

ADVANCED PRODUCT ALERT OF THE MONTH

KETRON® PEEK CA30%

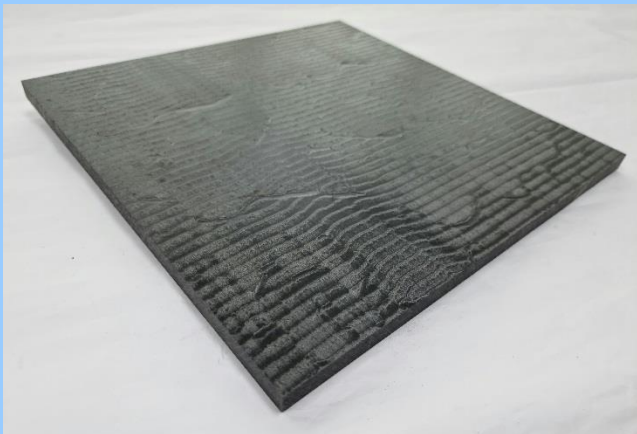
Manufactured by



PRODUCT OVERVIEW

KETRON® PEEK CA30% reinforced grade has high stiffness, mechanical strength as well as creep resistance. As compared to the unreinforced PEEK, the carbon fibres reduces thermal expansion and it produces 3.5 times higher thermal conductivity. This will improve the bearing life, pressure-velocity capabilities and it dissipates heat from the bearing surface at a faster rate. Applications include Sleeve Bearings for Steel Wire Guide Rollers, Pump Wear Rings, etc.

KETRON® PEEK CA30%



ADVANTAGES

- Carbon Fibers filled to enhance the Compressive Strength and Stiffness of PEEK, and lower its expansion rate.
- 3.5 times Higher Thermal Conductivity than unreinforced PEEK
- Very High Maximum Allowable Service Temperature in air (250 °C continuous, up to 310 °C for short periods)
- High Mechanical Strength, Stiffness and Creep Resistance.
- Excellent Chemical and Hydrolysis Resistance.

PRODUCT COLORS

- Black

APPLICATIONS

- Gas analyses Structural Body Parts
- Scraper Blades in Head Exchangers
- Sleeve Bearings for Steel Wire Guide Rollers
- Pump Wear Rings

TYPICAL PROPERTIES OF KETRON® PEEK CA30%

General Properties	ASTM or UL TEST	KETRON® PEEK CA30% Typical Values
PHYSICAL		
Specific Gravity (g/cm ³)	D792	1.41
Water Absorption, 24 hrs (%)	D570	0.06
MECHANICAL		
Tensile Strength (psi)	D638	19,000
Tensile Modulus (psi)	D638	1,100,000
Tensile Elongation at Break (%)	D638	5
Flexural Strength (psi)	D790	25,750
Flexural Modulus (psi)	D790	1,250,000
Compressive Strength (psi)	D695	29,000
Hardness, Rockwell	D785	M102
IZOD Notched Impact (ft-lb/in)	D256	1.03
THERMAL		
Coefficient of Thermal Expansion (x 10 ⁻⁵ in./in./°F)	E831	1
Heat Deflection Temperature (°F / °C) @ 264 psi	D648	518 / 270
Melting Temperature (°F / °C)	D3418	644 / 340
Continuous allowable service temperature in air (°F / °C)	-	482 / 250
Thermal Conductivity (BTU-in/ft ² -hr-°F)	F433	6.4
Flammability Rating	UL94	V-0
ELECTRICAL		
Dielectric Strength (V/mil) short time	D149	32
Dielectric Constant at 1 MHz	D150	-
Dielectric Factor at 1 MHz	D150	-
Surface Resistivity (ohm/sq) at 50% RH	ANSI / ESD STM 11.11	< 10 ⁵
Volume Resistivity (ohm.cm)	IEC 60093	< 10 ⁵

ERTACETAL® H

Manufactured by



PRODUCT OVERVIEW

ERTACETAL® H is a homopolymer acetal grade. It provides higher stiffness, hardness and mechanical strength. Other properties that it possesses is high creep resistance and lower thermal expansion. In addition, it provides better wear resistance than the acetal copolymer. Applications include, Heavily Loading Bearings, Rollers Valve Seats, etc.

ERTACETAL® H



PRODUCT COLORS

- White (Natural)
- Black

ADVANTAGES

- High Mechanical Strength, Stiffness and Hardness
- Excellent Resilience
- Good Creep Resistance
- High Impact Strength, Even at Low Temperatures
- Very Good Dimensional Stability (Low Water Absorption)
- Good Sliding Properties and Wear Resistance
- Excellent Machinability

APPLICATIONS

- Gear Wheels with Small Modulus Cams
- Heavily Loaded Bearings and Rollers Valve Seats
- Bearings and Gears with Small Clearances

TYPICAL PROPERTIES OF ERTACETAL® H

General Properties	ASTM or UL TEST	ERTACETAL® H Typical Values
PHYSICAL		
Specific Gravity (g/cm ³)	D792	1.41
Water Absorption, 24 hrs (%)	D570	0.20
MECHANICAL		
Tensile Strength (psi)	D638	11,000
Tensile Strain at Break (%)	D638	30
Tensile Modulus of Elasticity (psi)	D638	450,000
IZOD Impact Strength, Notched (ft.lb./in)	D256	1
Rockwell Hardness	D785	M88
THERMAL		
Coefficient of Linear Thermal Expansion (in./in./°F)	-	4.7 x 10 ⁻⁵
Heat Deflection Temp (°F/ °C) @ 1.8 MPa	D648	250 / 121
Thermal Conductivity at 23 °C (BTU in./ [hr-ft ² .°F])	-	2.50
Melting Temperature (°F/ °C)	-	347 / 175
Flammability Rating @ (3mm thickness)	UL-94	HB
ELECTRICAL		
Surface Resistivity (ohm/sq)	ANSI / ESD STM 11.11	> 10 ¹³
Volume Resistivity (ohm-cm)	{60093}	> 10 ¹⁴
Dielectric Dissipation Factor Tan δ : at 100 Hz	D150	0.005

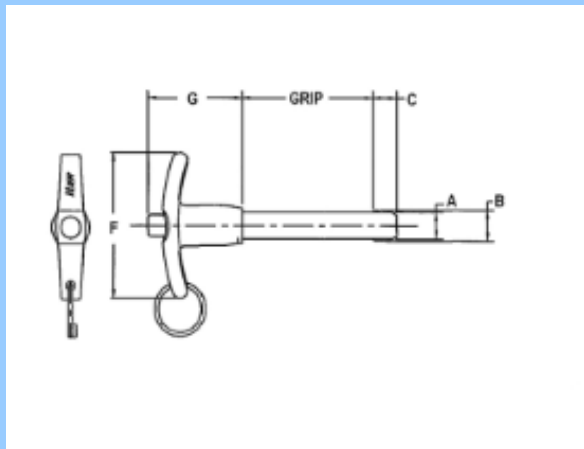
T-Handle Ball Locking Pins

Manufactured by



Vlier Products' history of success can be tied to the precision engineering of each of the over 3,300 standard parts offered in our extensive catalog. In addition to meeting demands on time and on budget, Vlier holds ISO:9001 and AS9100 certifications, internationally recognized Quality Management Systems that hold the company to first-rate quality standards and give assurance to customers of this quality.

T-Handle Ball Locking Pins



T-Handle Ball Locking Pins are quick release pins that consist of a shank body that is made of 300 stainless steel (Commercial Grade). **T-Handle Ball Locking Pins** is designed with a push button that is made of brass used for quick release. The T-handle itself is made of a black anodized aluminium handle.

T-Handle Ball Locking Pins is generally used for Fastening, Locating, Alignment and Positive Locking. Applications include, medical, manufacturing, vehicle, marine, etc.

Nut Driver and Bit Set 1/4"

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.

Nut Driver and Bit Set 1/4"



Nut Driver and Bit Set 1/4" is a 40-piece nut driver and 1/4" bit set can be used to perform fastenings in a single step. The set comprises of 1/4" hex nut driver inserts size 4-14 mm, a bit holder, various bits, a ratchet wrench, two extensions, a universal joint, and a 1/4" nut driver adapter.

In addition, the SoftFinish® screwdriver with magnetic bit holder is ergonomically friendly to allow comfortable handling of the job. The 1/4" nut driver adapter allows the SoftFinish® screwdriver to use with both the nut driver inserts and included bits. This will provide users adaptability in wide range of different applications.

Nut Driver and Bit Set 1/4" consist of a ratchet wrench which provides users with flexibility in their work job due to the design with 72 teeth and short return angle. It is designed to have an integrated switching lever to allow easy adjustments to the left or right rotations. The ratchet wrench can be combined with extensions to allow easy access to nuts & screws in unreachable areas.

Nut driver and extensions are mechanically locked and the change is initiated by pressing the activation button. Nut driver inserts are made of chrome vanadium steel which are long-lasting, robust and corrosion resistant. It is easy to clean as well. Lastly, the pouch bag is use to house and store the entire set. It is also designed to have non-slip surface which provides strong grip in wet and oily work environments.

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 – Sunloid® Plate Polycarbonate & Semitron® ESD 410C, Case Hardened & Ground Shafts, Metric 440C & SUJ2 #AAS-H3-5 (Nordex) & Ring ratchet open-ended spanner set (wiha). Stay tuned!