



**PACTUMAX**

**INTERNATIONAL PTE LTD**

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Welcome to our new issue of Pactumax Monthly Advanced Product Alert for the Year 2023 – keeping you informed of new product and materials advancements.

This month's featured items are **CERAMIC-FILLED PEEK®** and **ERTALON® 6SA / 6PLA**

**CERAMIC-FILLED PEEK®** has an excellent balance of properties including outstanding dimensional stability, ductility, low moisture absorption, high purity, and strength.

**ERTALON® 6SA** possesses high levels of stiffness, toughness, creep and wear resistance as well as mechanical damping properties.

**ERTALON® 6PLA** as compared to all the other Nylon 6 grades has the highest strength and hardness. In addition, it has great creep & wear resistance, machine capabilities and heat aging properties.

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

# ADVANCED PRODUCT ALERT OF THE MONTH

## CERAMIC-FILLED PEEK®

Manufactured by



### PRODUCT OVERVIEW

**CERAMIC-FILLED PEEK®** has an excellent balance of properties including outstanding dimensional stability, ductility, low moisture absorption, high purity, and strength. It is ideal for tight tolerance, intricate machined components, is resistant to heat and aggressive chemicals. Applications include microprocessor test socket applications, semi-conductor, etc.

### CERAMIC-FILLED PEEK®



### ADVANTAGES

- PEEK with Ceramic Fillers to significantly improve its mechanical properties.
- Excellent Dimensional Stability
- Good Impact Strength, Stiffness and Minimum Levels of Creep
- Better Impact Resistance and Toughness compared with Ceramics
- Excellent Machinability for Tighter Pitch and Fine Diameter Holes

### PRODUCT COLORS

- White
- Grey

### APPLICATIONS

- Test Sockets
- Switches
- Connectors

## TYPICAL PROPERTIES OF CERAMIC-FILLED PEEK®

General Properties	ASTM or UL TEST	CERAMIC-FILLED PEEK® Typical Values
<b>PHYSICAL</b>		
Specific Gravity (g/cm <sup>3</sup> )	D792	1.51
Water Absorption, 24 hrs (%)	D570	0.37
<b>MECHANICAL</b>		
Tensile Strength (psi)	D638	15,500
Tensile Elongation at Break (%)	D638	21
Flexural Strength (psi)	D790	26,500
Flexural Modulus (psi)	D790	750,000
IZOD Notched Impact (ft-lb/in)	D256	1.0
IZOD Un-Notched Impact (ft-lb/in)	D256	No Break
<b>THERMAL</b>		
Coefficient of Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	D696	2.0
Heat Deflection Temp (°F/°C) @ 264 psi	D648	599 / 315
Melting Point (°F / °C)	D3418	649 / 343
Tg Glass Transition Temp (°F / °C)	D3418	289 / 143
Thermal Conductivity (BTU-in / ft <sup>2</sup> -hr- °F)	C177	2.40
Flammability Rating	UL94	-
<b>ELECTRICAL</b>		
Dielectric Strength (V/mil) short time, (t) 1/8"	D149	400
Dielectric Constant at 1 KHz	D150	1, Dry 3.5
Dissipation Factor at 1 KHz	D150	1, Dry <0.005
Surface Resistivity (ohm/sq)	D257	10 <sup>14</sup>
Volume Resistivity (ohm/sq)	D257	10 <sup>14</sup>

# ERTALON® 6SA / 6PLA

Manufactured by



## PRODUCT OVERVIEW

**ERTALON® 6SA** possesses high levels of stiffness, toughness, creep and wear resistance as well as mechanical damping properties. In addition, **ERTALON® 6SA** has outstanding chemical resistance as well as excellent electrical insulating properties. Applications include are construction and maintenance applications.

**ERTALON® 6PLA** as compared to all the other Nylon 6 grades has the highest strength and hardness. In addition, it has great creep & wear resistance, machine capabilities and heat aging properties. Applications include packaging and food processing industry such as gears, rollers, etc.

### ERTALON® 6SA / 6PLA



### ADVANTAGES

- High Mechanical Strength, Stiffness and Toughness
- Good Fatigue Resistance
- High Mechanical Damping Ability
- Good Sliding Properties
- Excellent Wear Resistance
- Good Electrical Insulating Properties
- High Resistance against High Energy Radiation (Gamma & X-Rays)
- Good Machinability

### PRODUCT COLORS

#### ERTALON® 6SA

White, Black

#### ERTALON® 6PLA

Ivory, Black

### APPLICATIONS

- Sleeve & Slide Bearings
- Cutting & Chopping Boards
- Support and Guide Wheels
- Sleeves for Wheels and Rollers
- Pulley and Pulley Linings

## TYPICAL PROPERTIES OF ERTALON® 6SA / 6PLA

GENERAL PROPERTIES	ASTM or UL TEST	ERTALON® 6SA Typical Values	ERTALON® 6PLA Typical Values
<b>PHYSICAL</b>			
Specific Gravity (g/cm <sup>3</sup> )	D792	1.14	1.15
Water Absorption, 24 hrs (%)	D570	9.0	0.60
<b>MECHANICAL</b>			
Tensile Stress at Yield (psi)	D638	11,600	12,000
Tensile Strain at Break (%)	D638	>50	20
Tensile Modulus of Elasticity (psi)	D638	479,000	400,000
IZOD Impact Strength, Notched	D256	-	0.4
Rockwell Hardness	D785	M85	M88
<b>THERMAL</b>			
Coefficient of Linear Thermal Expansion (in./in./°F)	E831	5.8 x 10 <sup>-5</sup>	5 x 10 <sup>-6</sup>
Heat Deflection Temperature, (°F/°C) @ 1.8 MPa	D648	158 / 70	200 / 93
Thermal Conductivity at 23 °C (BTU in./ [hr.ft <sup>2</sup> . °F])	-	1.94	1.70
Flammability Rating (3mm Thickness)	UL-94	HB	HB
<b>FLAMMABILITY</b>			
Surface Resistivity (Ohm/sq)	ANSI/ESD STM 11.11	>10 <sup>13</sup>	>10 <sup>13</sup>
Volume Resistivity (Ohm.cm)	60093	>10 <sup>14</sup>	>10 <sup>14</sup>
Dielectric Dissipation Factor Tan δ: at 1 MHz	D150	0.019	-

# Quick Release Pins, GHP-135A

Manufactured by



Established in 1948, Reid Supply, a division of Essentra, also known as Reid Tool Supply back in the day, is a premier provider of over 40,000 industrial components to the North American manufacturing market. We offer a comprehensive line of quality industrial components and are well known for our broad range of clamps & work holding products, knobs, handles, & hand wheels, tooling & positioning components, feet, casters & vibration mounts

## Quick Release Pins, GHP-135A



Push Button Pin, Nominal Pin Diameter = 12.7mm, ½ in,  
Grip Length = 12.7mm, 0.500 in,  
Double Shear Strength = 36900 lbs

Item Code: **GHP-135A**

Handle Type: **Heavy Duty T-Handle**

Type: **Quick Released Pins**

Grip Length: **0.500 in**

Double Shear Strength: **36900 lbs**

Material: **Stainless Steel**

Handle Material: **Stainless Steel**

Head Height: **1.434 in**

Lead Length: **11.7 mm**

Pin Material: **Stainless Steel**

Handle Length: **2.500 in**

**Quick Release Pins, GHP-135A** is designed to be used in applications where the positive stop is required. The shoulder will inhibit the pin from being inserted all the way to the handle. Furthermore, the pins will not release until the button is pushed, which will cause the balls located at the end of the pin to retract for insertion and removal of the pin.

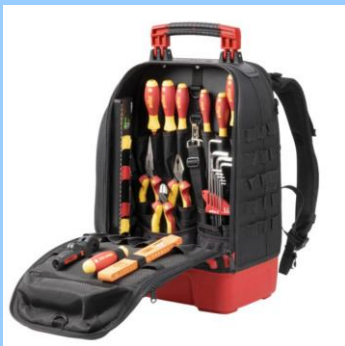
# Tool Backpack Electric

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.

## Tool Backpack Electric



### Standards

Tested according to IEC 60900

### Application

The backpack is ideally suited for mobile application and offers maximum freedom for the hands and work location.

**Tool Backpack Electric** has a compartment system which will provide a structured organization and easy removal of the tools. When the backpack is opened about one-third, it offers practical quick access options. There are a total of 77 storage and 30 flexible attachment possibilities which allow personalised configuration options with added tools and accessories.

**Tool Backpack Electric** is made up of robust material and it can be used in harsher working conditions. In addition, the backpack can also be used as a mobile office where the backpack has a compartment to put laptops, papers, etc. In addition, it has a high quality surface material 1680D and YKK zippers.

**Tool Backpack Electric** is equipped with a ten-part L-key set, six ergonomic screwdrivers and the compact PocketMax®, all of which are VDE certified indicating safety and reliability. Safety is also provided by the insulated combination and needle nose pliers as well as the diagonal cutter. This will allow all holding, feeding and cutting tasks can therefore be carried out.

In addition, tools such as the Wiha spirit level, the electrician's folding ruler, and insulating Multi-tool complete the range of tools for electricians. Lastly, Tool Backpack Electric can be expanded to a universal MOLLE system.

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](mailto:sales@pactumax.com). We look forward to hearing from you!

Highlights from the next issue of Pactumax Monthly Advanced Product Alert – MONOCAST MC501CD R2/R6/R9, ERTALYTE PET-P/TX, LONG TRAVEL HEX NOSE PLUNGERS (Vlier), CLAMP METER UP TO 1,000 V AC, CAT IV (wiha)