



**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 **KETRON® LSG CC PEEK** and **SEMITRON® ESD 420/420V**

**KETRON® LSG CC PEEK** is an engineering plastic with a unique compression molded grade has a profile with high performance due to its structure that is woven by carbon fiber.

**SEMITRON® ESD 420/420V** is an electro static dissipative shape engineering plastic that possesses high strength and stiffness as well as excellent surface resistivity ranges between  $10^6$  to  $10^9$  ohm per square range.

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® LSG CC PEEK

Manufactured by



### PRODUCT OVERVIEW

**KETRON® LSG CC PEEK** is an engineering plastic with a unique compression molded grade has a profile with high performance due to its structure that is woven by carbon fiber. The material composition comprised of 57% Carbon Fiber, and 43% Impregnated PEEK Polymers that are pressed into layers known as laminates. **KETRON® LSG CC PEEK** at elevating temperatures has a very high excellent mechanical strength, stiffness, friction and wear resistance. In addition, **KETRON® LSG CC PEEK** is able to deliver excellent performance even under the chemical and irradiated environments.

### KETRON® LSG CC PEEK



### PRODUCT COLORS

- Black

### ADVANTAGES

- Excellent stiffness and mechanical strength
- Excellent performance in chemical and irradiated environments
- Outstanding friction and wear resistance

### APPLICATIONS

- Provisional Trials
- Medical Device Components

## TYPICAL PROPERTIES OF KETRON® LSG CC PEEK

GENERAL PROPERTIES	ASTM or UL TEST	KETRON® LSG CC PEEK Typical Values
<b>PHYSICAL</b>		
Specific Gravity	ASTM D792	1.52
Water Absorption, 24 hrs (%)	ASTM D570	0.018
<b>MECHANICAL</b>		
Tensile Strength (psi)	ASTM D638	85,000
Tensile Elongation at Break (%)	ASTM D638	1.6
Flexural Strength (psi)	ASTM D790	115,000
Flexural Modulus (ksi)	ASTM D790	7,500
Rockwell Hardness (M)	ASTM D785	116
Compressive Stress at 1/2/5 % Nominal Strain	-	-
<b>THERMAL</b>		
Coefficient of Thermal Expansion ( $\mu\text{in./in./}^\circ\text{F}$ )	ASTM E-831 (TMA)	0.22
Heat Deflection Temperature, ( $^\circ\text{F}$ ) @ 264 psi	ASTM D648	580
Thermal Conductivity (BTU in./hr.ft <sup>2</sup> . $^\circ\text{F}$ )	-	-
Flammability Rating (UL94)	-	V-0
<b>ELECTRICAL</b>		
Surface Resistivity (ohm/sq)	ANSI/ESD STM 11.11	$\leq 10^5$
Volume Resistivity (ohm.cm)	IEC 60093	-

# SEMITRON® ESD 420/420V

Manufactured by



## PRODUCT OVERVIEW

**SEMITRON® ESD 420/420V** is an electro static dissipative shape engineering plastic that possesses high strength and stiffness as well as excellent surface resistivity ranges between  $10^6$  to  $10^9$  ohm per square range.

**SEMITRON® ESD 420/420V** is able to perform well in high temperature environments, which suits well with extreme structural applications in semiconductor and electronics industries.

## SEMITRON® ESD 420/420V



## PRODUCT COLORS

- Black

## ADVANTAGES

- Thermally Stable to Temperatures of 420 °F (215 °C)
- High Mechanical Strength
- Easily Machined to Tight Tolerances
- UL-94 V-0 Rated

## APPLICATIONS

- Disk Drive Assembly Fixtures
- Semiconductor/ Electronic Components
- Telecommunications Hardware
- Automotive Equipment

## TYPICAL PROPERTIES OF SEMITRON® ESD 420/420V

GENERAL PROPERTIES	ASTM or UL TEST	SEMITRON® ESD 420 Typical Values	SEMITRON® ESD 420V Typical Values
<b>PHYSICAL</b>			
Specific Gravity	D792	1.34	1.51
Water Absorption, 24 hrs (%)	D570	0.50	0.21
<b>MECHANICAL</b>			
Tensile Strength (psi)	D638	11,500	10,000
Tensile Modulus (ksi)	D638	640	910
Tensile Elongation at Yield (%)	D638	-	-
Flexural Strength (psi)	D790	14,500	15,800
Flexural Modulus (ksi)	D790	650	910
Compressive Strength (psi)	D695	23,800	22,300
Compressive Modulus (psi)	-	-	-
Rockwell M Hardness	D785	118	110
IZOD Notched Impact (ft-lb/in)	D256	1.00	0.50
<b>THERMAL</b>			
Coefficient of Thermal Expansion (µin./in./°F)	E831 (TMA)	19.5	15
Heat Deflection Temperature (°F/°C) @ 264 psi	D648	410 / 210	420 / 215
Glass Transition Temperature (°F/°C)	DMA	410 / 210	420 / 220
Maximum Operating Temperature (°F/°C)	-	340 / 170	340 / 170
Thermal Conductivity (BTU in./(hr.ft².°F))	-	1.51	-
Flammability Rating (UL94)	-	V-0	V-0
<b>ELECTRICAL</b>			
Electric Strength (V/mil)	D149	-	-
Dissipation Factor at 1 MHz	D150	0.266	-
Surface Resistivity (ohm/sq)	ANSI / ESD STM 11.11	10 <sup>6</sup> to 10 <sup>9</sup>	10 <sup>6</sup> to 10 <sup>9</sup>

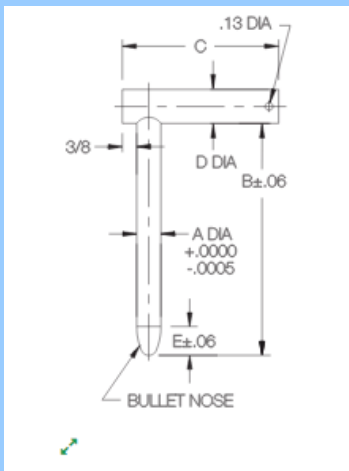
# CL-5-LP L PINS

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-5-LP L PINS



**Part number: CL-5-LP**  
**A Diameter (Nominal): 1/4**  
**A Diameter (Actual): 0.25**  
**B: 3**  
**C: 2-1/2**  
**D Diameter: 3/8**  
**E: 3/8**

**CL-5-LP L PINS** are a removable locating pins, precision ground for aligning holes in a precise manner. L-shaped pins have a feature that has body inset into a solid handle and it is soldered by silver to produce a durable assembly.

**CL-5-LP L PINS** has a L pin handle that is designed with a small hole to allow the attachment of an optional cable. L-shaped pins are available in pin diameters from 1/8 to 3/4" which includes some number and letter sizes (4 to 20mm in metric), mostly available in several pin lengths. Manufactured in USA.

# FLASHLIGHT WITH LED, LASER AND UV LIGHT

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.

## FLASHLIGHT WITH LED, LASER AND UV LIGHT



### FLASHLIGHT WITH LED, LASER AND UV LIGHT

is a universal working tool that is multi-functional with three different lights integrated laser, UV light & LED light. LED light has two level of lighting which can be adjusted to suit different types of lighting condition which will improve your field of vision.

### FLASHLIGHT WITH LED, LASER AND UV LIGHT

has an in-built UV light which can be used for technical inspections

### FLASHLIGHT WITH LED, LASER AND UV LIGHT

is designed to have magnetic positioning mechanism and a retaining clip which will free hands from other tasks. The integrated magnets in the flashlight can be positioned where necessary in electrical enclosures.

### FLASHLIGHT WITH LED, LASER AND UV LIGHT

can be adjusted to a L-shape which enable the user to direct the light to a desired angle.

### FLASHLIGHT WITH LED, LASER AND UV LIGHT

has an in-built laser which provides the user to perform the job of fixing positions with more precision and projected measurements while installing lights on the ceiling. In additional, the laser is designed to have a delay-switch on of 2 seconds to prevent accident from happening.

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 –Ultem® 1000, Ertalon® 66SA, Cup Mount (Reid Supply) & Tool case set XXL III electric (wiha). Stay tuned!