



**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 **SUNLOID® PLATE POLYCARBONATE** and **SEMITRON® 410C PEI**

**SUNLOID® PLATE POLYCARBONATE** possesses remarkable heat and impact resistance at both high and low temperatures.

**SEMITRON® 410C PEI** has excellent dimensional stability characteristics and this material is best suited for the semi-conductor and electronic handling industries.

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

# ADVANCED PRODUCT ALERT OF THE MONTH

## SUNLOID® PLATE POLYCARBONATE

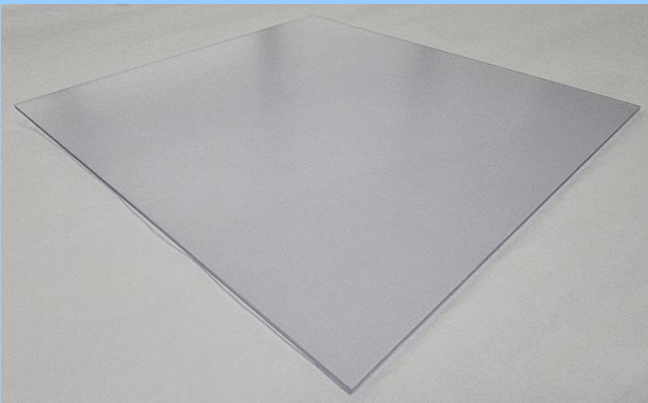
Manufactured by

 **SUMITOMO BAKELITE CO.,LTD.**

### PRODUCT OVERVIEW

**SUNLOID® PLATE POLYCARBONATE** possesses remarkable heat and impact resistance at both high and low temperatures. In addition, this material has excellent transparency which are applicable for construction and architectural structures such as windows, dormitories and canopies. **SUNLOID® PLATE POLYCARBONATE** has high flame retardancy and the material is approved as a “DW-9054 fire retardant”. Lastly, this material does not emit toxic gases in the event of a fire incident which is essential to protect the safety of the environment.

### SUNLOID® PLATE POLYCARBONATE



### PRODUCT COLORS

- Clear

### ADVANTAGES

- Good Transparency
- High Impact Resistance
- High Temperature Resistance

### APPLICATIONS

- Interior Decoration
- Construction
- Electrical and Electronic Equipment
- Automotive, Railways & Aircraft

## TYPICAL PROPERTIES OF SUNLOID® PLATE POLYCARBONATE

General Properties	ASTM or UL TEST	SUNLOID® PLATE POLYCARBONATE Typical Values
<b>PHYSICAL</b>		
Specific Gravity (g/cm <sup>3</sup> )	JIS K 7112	1.20
Water Absorption, 24 hrs (%)	ASTM D570	0.23
<b>MECHANICAL</b>		
Tensile Strength (N/mm <sup>2</sup> )	JIS K 6745	65
Pencil Hardness	JIS K 5400	3B
Flexural Strength (N/mm <sup>2</sup> )	JIS K 7203	90
Flexural Modulus (N/mm <sup>2</sup> )	JIS K 7203	2200
IZOD Impact Strength (KJ/mm <sup>2</sup> )	JIS K 6745	780
<b>THERMAL</b>		
Coefficient of Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	ASTM D696	7
Heat Deflection Temperature (°F / °C)	D648	275/135
Flammability Rating	UL-94	HB
<b>ELECTRICAL</b>		
Surface Resistivity (ohm/sq)	D257	-
Total Light Transmittance (%)	JIS K 6745	80
Haze (%)	JIS K 6745	3

# SEMITRON® 410C PEI

Manufactured by



## PRODUCT OVERVIEW

**SEMITRON® 410C PEI** has excellent dimensional stability characteristics and this material is best suited for the semiconductor and electronic handling industries. **SEMITRON® 410C PEI** is suitable to be in environments with temperature up to 410 °F without degradation and a reduced coefficient of linear thermal expansion. In addition, this material is low in stress for tolerances that are tighter during the process of machining and it has minimal levels of water absorption. Applications for **SEMITRON® 410C PEI** include hard disk drive, circuit board, sensitive processing equipment, etc.

### SEMITRON® 410C PEI



### PRODUCT COLORS

- Black

### ADVANTAGES

- Good Dimensional Stability
- Consistent Electrical Properties
- Excellent Surface Quality
- Outstanding Toughness
- Excellent Thermal Stability

### APPLICATIONS

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

**TYPICAL PROPERTIES OF SEMITRON® 410C PEI**

<b>General Properties</b>	<b>ASTM or UL TEST</b>	<b>SEMITRON® 410C PEI Typical Values</b>
<b>PHYSICAL</b>		
Specific Gravity (g/cm <sup>3</sup> )	D792	1.41
Water Absorption, 24 hrs (%)	D570	0.3
<b>MECHANICAL</b>		
Tensile Strength (psi)	D638	9,000
Tensile Modulus (psi)	D638	850,000
Tensile Elongation at Yield (%)	D638	-
Flexural Strength (psi)	D790	12,000
Flexural Modulus (psi)	D790	850,000
Compressive Strength (psi)	D695	19,500
Hardness, Rockwell	D785	M115
IZOD Notched Impact (ft-lb/in)	D256	0.8
<b>THERMAL</b>		
Coefficient of Thermal Expansion (x10 <sup>-5</sup> in./in./°F)	E831	1.8
Heat Deflection Temp (°F/ °C) @ 264 psi	D648	410/210
Glass Transition Temp (°F/ °C)	DMA	410/210
Max Operating Temp (°F/ °C)	-	338/170
Thermal Conductivity (BTU-in/ ft <sup>2</sup> - hr-°F)	-	2.45
Flammability Rating	UL-94	V-0
<b>ELECTRICAL</b>		
Electric Strength (V/mil)	D149	-
Dissipation Factor at 1 MHz	D150	0.0013
Surface Resistivity (ohm/sq)	ANSI / ESD STM 11.11	10 <sup>4</sup> - 10 <sup>6</sup>
Volume Resistivity (ohm.cm)	IEC 60093	-

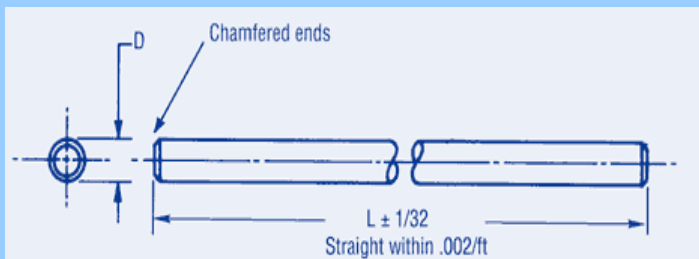
# CASE HARDENED & GROUND SHAFTS, METRIC 440C & SUJ2 #AAS-H3-5

Manufactured by



Nordex, incorporated in 1960, designed and manufactured surface mount technology assembly equipment. In 1975, the product line was modified for the manufacture of miniature precision electro-mechanical parts and assemblies. Today, our focus is on fully integrated turnkey subsystems for the medical, laboratory and industrial analytical instruments, factory automation, power transmission, robotics, defense, aerospace and semi-conductor OEM industries.

## CASE HARDENED & GROUND SHAFTS, METRIC 440C & SUJ2 #AAS-H3-5



### Modifications Available on Request:

Special Shaft Lengths, Retainer Ring Grooves, Journals, Milled Flats, Drilled Holes.

## CASE HARDENED & GROUND SHAFTS, METRIC 440C & SUJ2 #AAS-H3-5

Metric Sizes: 3 – 25mm

Material: AISI - 440C Stainless Steel Case

Hardness: Ø3-6 56RC min., Ø8-25 58RC min.

Ordering Information: Please include desired length in inches after catalog number, tolerance to be  $\pm 1/32$ ". Please refer to index for mounting accessories.

Tolerance (g5  $\mu\text{m}$  Special Order): -5 / -11

Diameter (D): 8

Mass (kg/m): 0.39

Maximum Length (mm): 1000

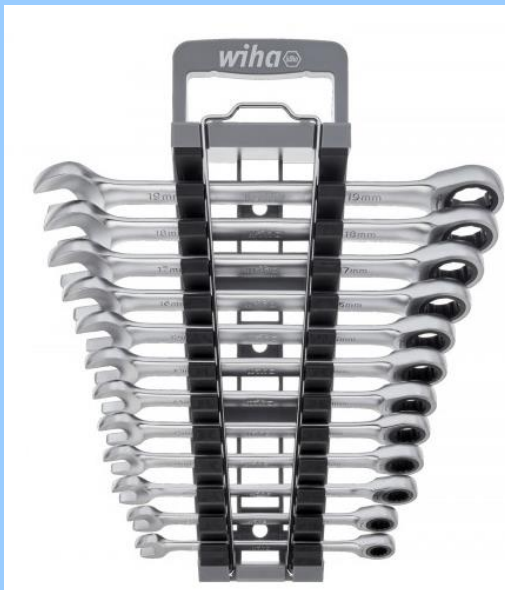
# RING RATCHET OPEN-ENDED SPANNER SET

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.

## RING RATCHET OPEN-ENDED SPANNER SET



**RING RATCHET OPEN-ENDED SPANNER SET** has 12 spanners in total ranging from 8 to 19mm which can be stored and arranged neatly in a holder racked design. The spanner of choice can be easily removed from the holder with a single hand. The spanner is designed with a non-slip surface which provides the user with good grips even in wet or oily work environments.

**RING RATCHET OPEN-ENDED SPANNER SET** is designed to open tight fastened screws that required great amounts of force. The spanner is equipped with a leverage action that allows the user to easily open any fastening. **RING RATCHET OPEN-ENDED SPANNER SET** has a jaw end that is also used to tighten screws and nuts. The jaw end is also designed with a 15° jaw positioning which allows the job to be handled in tight confined spaces.

**RING RATCHET OPEN-ENDED SPANNER SET** has a ring ratchet that comprises of 72 teeth which provides a short return angle and great comfort to work in tight workspaces due to its double hex design. The spanner is designed to rotate around its own axis, it can be either used in left or right direction.

**RING RATCHET OPEN-ENDED SPANNER SET** is made of top quality chromed vanadium steel which are known for its longevity and its robustness. The material is corrosion-resistant and the surface is easy to clean.

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 – Ketron® PEEK & POLYPROPYLENE (PP), Quick-Ship Press-Fit Bushings (CarrLane) & Soft-faced Hammer Dead-Blow (wiha). Stay tuned!