



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 **POM SDA** and **TORLON® 5030**

POM SDA is an anti-static acetal co-polymer that has a surface resistivity of 10^9 to 10^{11} ohm/sq. The material is not carbon-filled, non-migratory and it is not dependent on humidity.

TORLON® 5030 is a high modulus polyamide-imide engineering plastic material which contains 30% glass fibres.

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

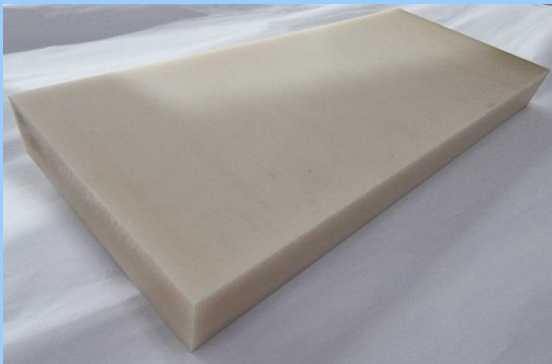
ADVANCED PRODUCT ALERT OF THE MONTH

POM SDA

PRODUCT OVERVIEW

POM SDA is an anti-static acetal co-polymer that has a surface resistivity of 10^9 to 10^{11} ohm/sq. The material is not carbon-filled, non-migratory and it is not dependent on humidity. The material is easy for machining and it has excellent wear resistance. **POM SDA** has excellent lubricity properties and the colour of the material is 'Light Beige' and 'Blue'. In addition, **POM SDA** has low emission levels of outgassing and non-sloughing properties. This is critical for ESD applications as carbon sloughing is not acceptable.

POM SDA



ADVANTAGES

- Permanently Dissipative
- Non-Carbon filled
- Non-Sloughing
- Enhanced Lubricity
- Chemical Resistance
- Dimensionally Stable
- Easily Machined
- Excellent Wear Resistance
- Low Outgassing Levels

PRODUCT COLORS

- Light Beige
- Blue

APPLICATIONS

- Excellent Choice for Tools/ Fixturing
- In-Process Silicon Wafer or Used in the Manufacturing of Sensitive Electronic Components
- Telecommunications Hardware
- Automotive Equipment

TYPICAL PROPERTIES OF POM SDA

General Properties	ASTM or UL TEST	POM SDA Typical Values
PHYSICAL		
Specific Gravity	D792	1.32
Water Absorption (%)	D570	2.3
MECHANICAL		
Tensile Strength - Yield (psi)	D638	5,950
Tensile Elongation at Yield (%)	D638	16
Flexural Strength (psi)	D790	7,110
Flexural Modulus (psi)	D790	290,000
IZOD Notched Impact (ft-lb/in)	D256	No-break
IZOD Unnotched Impact (ft-lb/in)	D4812	No-break
Hardness, Shore D	D2240	-
THERMAL		
Coeff. of Thermal Expansion (x 10 ⁻⁵ in./in./°F)	D696	-
Heat Deflection Temp (°F/ °C) @ 264 psi	D648	153/67
Thermal Conductivity (BTU-in / ft ² -hr- °F)	C177	-
Flammability Rating@.030" (UL94)	-	-
ELECTRICAL		
Surface Resistivity (ohm / sq)	D257	10 ⁹ -10 ¹¹
Static Decay, 15% RH (seconds)	MIL-B-81705-B	-

TORLON® 5030

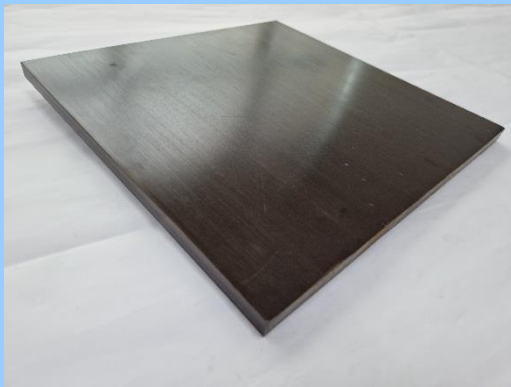
Manufactured by

DRAKE PLASTICS LTD. CO.

PRODUCT OVERVIEW

TORLON® 5030 is a high modulus polyamide-imide engineering plastic material which contains 30% glass fibres. It is commonly used with electrical insulators and thermal isolators. As compared to its counterpart TORLON® 4203, **TORLON® 5030** has a 50% lower Coefficient of Linear Thermal Expansion and does not possess conductivity of carbon fibers. In addition, **TORLON® 5030** possesses high strength and modulus. Applications include test sockets for IC's, fasteners and valve seats.

TORLON® 5030



PRODUCT COLORS

- Dark Brown

ADVANTAGES

- High Service Temperature in Air (260 °C continuously)
- High Mechanical Strength, Stiffness and Creep Resistance
- Dimensionally Stable
- Low Flammability
- Good Electric Insulating and dielectric properties
- Excellent Resistance against High Energy Radiation

APPLICATIONS

- Structural Application supporting Static Loads for long periods of time at High Temperature

TYPICAL PROPERTIES OF TORLON® 5030

GENERAL PROPERTIES	ASTM or UL TEST	TORLON® 5030 Typical Values
PHYSICAL		
Specific Gravity (lb/in ³)	D792	0.058
Water Absorption, 24 hrs (%)	D570	0.3
MECHANICAL		
Tensile Strength, Ultimate (psi)	D638	23,000
Tensile Modulus (psi)	D638	1,000,000
Tensile Elongation at Break (%)	D638	4
Flexural Yield Strength (psi)	D790	30,000
Flexural Modulus (psi)	D790	980,000
Compressive Strength (psi)	D695	40,000
Compressive Modulus (psi)	D695	700,000
Rockwell M Hardness	D785	M125
IZOD Notched Impact	D256	1.0
THERMAL		
Coefficient of Thermal Expansion (x 10 ⁻⁵ F ⁻¹)	E831 TMA	0.9
Heat Deflection Temperature, (°F/ °C) @ 264 psi	TMA	532/278
Melting Point Temperature (°F/ °C)	D3418	527/275
ELECTRICAL		
Surface Resistivity (Ohm/sq)	-	-
Volume Resistivity (Ohm.cm)	-	-

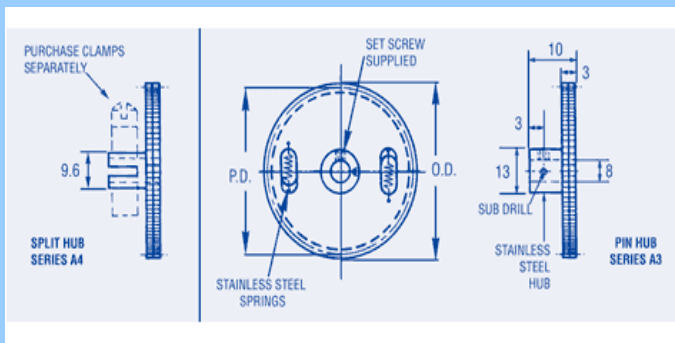
Anti-Backlash Gear

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.

Anti-Backlash Gear



**0, 25 MODULE
3 mm FACE
8 mm BORE**

Teeth: 150

Pitch Diameter: 37, 50

Outside Diameter: 38,00

Material: 303 Stainless Steel

Anti-Backlash Gear

- 20-degree pressure angle
- DIN 7 gears supplied
- Anodize may be Grey or Black at Nordex option

Torque screwdriver iTorque®

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.

Torque screwdriver iTorque®



Accuracy: $\pm 6\%$, Traceable to national standards

Handle: A push button is installed in the handle to set the Torque easily. The handle itself is made of ergonomically plastic/metal compound robust materials. The sizes of the handle are designed to proportionally optimize torque setting. Audible click signals to indicate torque has reached. It is compatible with blades of the 2859.

Standards: DIN EN ISO 6789

Extra: Units Switched: Nm \leftrightarrow in.lbs/ cNm \leftrightarrow in.oz
Click Control – Integrated counter records all applications. Calibration alert after 5000 applications.

Application: Controlled fastening with pre-set torque

Bit holder: Torque Bit Universal Holder exchange blade for accommodating C 6.3 and E 6.3 (1/4") bits

Torque screwdriver iTorque® is designed to assist in controlled fastening with a specific torque when changing indexable cutter inserts. The adjustable range on the cap at the end of the iTorque®'s handle.

Torque screwdriver iTorque® has the function to change the torque unit from Nm to lbs. In addition, the large digital display for users to read the set Nm value easily. With a release accuracy of $\pm 6\%$, **Torque screwdriver iTorque®** complies with EN ISO 6789 requirements. There is an integrated counter which is important for monitoring testing equipment.

Torque screwdriver iTorque® has an alarm function that reminds users that calibration is due after 5000 tasks performed and the torque can re-adjusted. In addition, **Torque screwdriver iTorque®'s** handle grip is ergonomically shaped with soft zones for easy handling.

Lastly, **Torque screwdriver iTorque® set** includes a bit universal holder for holding 1/4" bits. The **iTorque®** is also compatible with 4mm Wiha Torque interchangeable blades (series 2859).

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 – SEMITRON® 520HR, TUFFAK® LF, CL-MF40-5002 • Hook Clamps – Long Arm (Standard) (CarrLane) & SMD tweezer set Professional ESD (wiha). Stay tuned!