



# TREXONN

## SLIDEWAY LINERS

### About Hindustan Nylons

Hindustan Nylons is company with difference. It is new, but the expertise it possesses is not. At the core of company are people, who have knowledge & experience of all aspects of FLUOROMETALS be it engineering & design manufacture, application or serving.

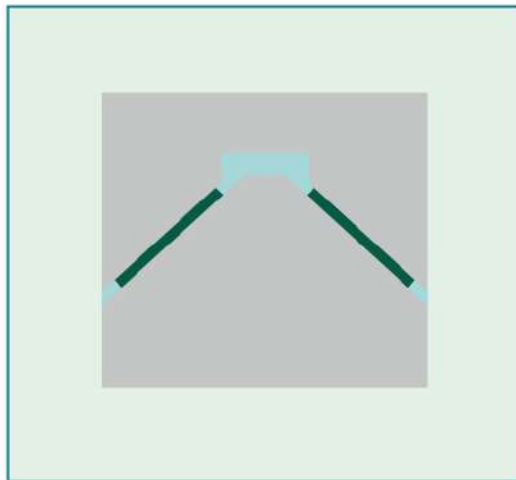
We firmly believe on developing new systems to greatly upgrade the conventional systems imparting TOTAL QUALITY & MAXIMUM PRODUCTIVITY

This is what, we have undertaken for Machine Tools Manufacturers, Rebuilders, by devotion of skills & efforts.

The result is TREXONN BEARING SYSTEM, essential for your Machine Tools.

### Trexonn Linear Bearing System

The TREXONN GLYDVEL Linear Bearing System is employed on Machine Tools, Transfer Lines for achieving Total Quality & Maximum Productivity. The system basically consists of TREXONN Fluorometallic Liner fixed on moving part of Machine Tools VIZ. Slideways & this sliding part of Machine Tools moves over guideways. avoiding direct metal to metal contact.



### Trexonn General Properties

TREXONN is Fluorometallic, which is extensively used in Mechanical, Machine Tool Manufacturing Industries, Hydraulics & Pneumatics Manufacturing Industries due to its unique characteristics.

- Exceptionally low coefficient of friction
- Excellent Wear resistance
- Outstanding Antistick Nature
- Pre-eminent Anti-slip Behaviour
- Self Lubricating
- Remarkably good compressive strength
- Tough, Durable & Resilient
- Equal Static & Dynamic frictional Behavior.



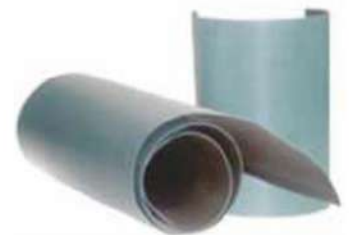
### Trexonn Working Benefits

The system imparts unique working advantages, due to outstanding properties of TREXONN.

- Minimum friction between moving & stationary surfaces, reducing Run in time, saving power.
- Accurate positioning of moving part of Machine with less power.
- Minimum efforts to slide the moving part while start up, run & stoppage.
- No overtravel of moving part of machine.
- Requires no lubrication & eliminates elaborate lubrication system.
- Shocks & Vibrations free operations to attain maximum accuracy.
- No sticking up or galling of moving part when idle for time.
- Machine works more accurately for longer durations.
- Minimum service intervals
- Easy servicing & fast replacement
- Smooth & Chatter free travel
- Renews worn equipment

### Trexonn Aggregate Effects

- Maximum & Repetitive Accuracy
- Improvement in productivity
- Ultimate Total Quality
- Reduced Operators fatigue
- Less production down time
- Enhanced useful life of machine
- Ease of serving
- Fast replacement



### Trexonn Applications

- Liners for Machine Tools, Transfer Lines Slideways & Guideways
- Bushings for low Load-High Speed Machine Tools
- Sealing Bushes & Rings for Hydraulic & Pneumatic Actuators

### Trexonn Forms

TREXONN - GLYDVEL Linear Bearing System is available with forms of liners in different thickness 0.75mm, 1.25mm, 1.5mm, 2.5mm, 3mm & standard width of 305mm.

\*Non Standard forms available on request.



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### Trexonn Fittment Method

#### 1. Trexonn Glydvel

The TREXONN GLYDVEL Liner has been chemically treated on one side & is ready for adhering to the correctly prepared metallic surface.

#### 2. Prepration of Metallic Surface

**A** The metal Surface can be prepared with machining methods like Grinding, Milling, Shaping, Planing, Scraping & Polishing & having ultimate surface roughness between Ra=1.6 to 6 $\mu$

**B** Any depressions dents, pores on metal surface should be covered. filled with epoxy based adhesives & polished.

**C** The Metallic Surface as well as liner surface should be cleaned by only following cleaning agents.

- Trichloroethylene
- Per Chloroethylene
- Acetone

Caution: Petrol, Diesel, Kerosene, should not be used as cleaning agent.

#### 3. Gluing

**A** Adhesive - ARALDITE, AW 106 HV953V or Locktite EA E30 HV

**b** The Araldite should be applied to both metallic surface & pretreated - black side of TREXONN liner uniformly. The due care should be taken while spreading the araldite on metallic surface in longitudinal direction (Perpendicular to sliding direction) while on TREXONN liner in Transvere direction (Parallel to sliding direction)

**C** Adhesive Quantity: 0.200 kg per sq.m.

#### 4. Fitment

The metallic surface & TREXONN liner may be exposed to air for minutes for accelerating the curing & subsequently the TREXONN liner may be kept on metallic surface from one end & then slowly up to other end.

#### 5. Curing

During curing the constant clamping pressure of 200gm/cm<sup>2</sup> may applied for 48 hours

#### 6. Finishing

After curing TREXONN liner can be finished by conventional finishing mediums like Grindstone & Polish papers.

|               |                 |                   |
|---------------|-----------------|-------------------|
| Grindstone    | Grinding Medium | SIC               |
|               | Grain Size      | 46                |
|               | Roughness       | G                 |
|               | Structure       | 16                |
|               | Binder          | Ke                |
| Polish Papers | Medium          | Electrocoated SIC |
|               | Grian Size      | 240               |
|               | Roughness       | P                 |

#### Caution

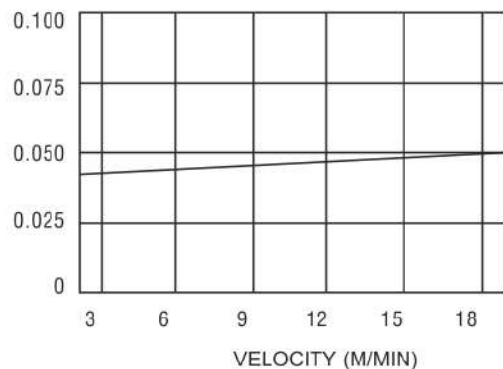
The Best performance of TREXONN systems is dependent on bonding strength between metallic surface & liner. Hence any deviation w.r.t. undernoted matter shall result in poor bonding & leading to premature failure of total system.

- Surface roughness of metallic surface.
- Cleaning Agents
- Method of Application of glue.
- Exposure of treated surface of liner to light should be strictly avoided.

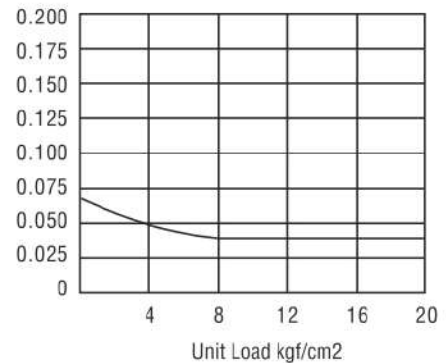
### Trexonn Physical Properties

| Property             | Unit                       | Test Method | Value           |
|----------------------|----------------------------|-------------|-----------------|
| Density              | gm/cc                      | ASTM-D-792  | 3.2 (Min.)      |
| Tensile Strength     | kgf/cm <sup>2</sup>        | ASTM-D-638  | 150 (Min.)      |
| Elongation           | %                          | ASTM-D-638  | 150 (Min.)      |
| Compressive Strength | kgf/cm <sup>2</sup>        | ASTM-D-695  | 100 (Min.)      |
| Heat Resistance      | °C                         | ASTM-D-648  | -250 to + 250°C |
| Hardness             | Shore D                    | ASTM-D-2240 | 64 (Min.)       |
| Limiting PV Value    | kgf/cm <sup>2</sup> x mm/s | Type        | 400 (Min.)      |

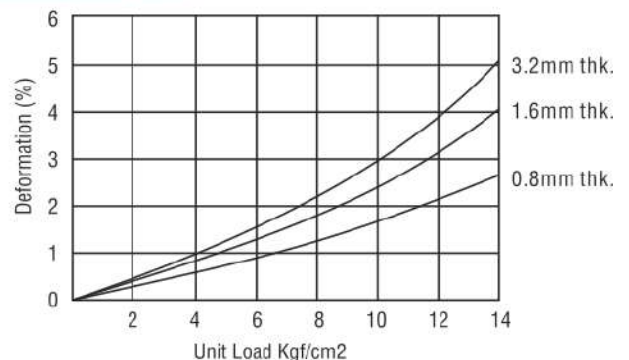
### Coefficient of Friction ( $\mu$ )



### Velocity (M/MIN)



### Deformation Under Load



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