

# TDX-1

(The better alternative to Polyurethane)



An ISO  
9001-2000  
Company



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A Soni Group of Company

# TDX-1

(The better alternative to Polyurethane)



**TDX-1** is a polymeric composite material with outstanding abrasion and cut resistance coupled with excellent load bearing capability.

**TDX-1** is the outcome of SR's endeavor on continuous improvement and development with international technical support along with Indian R & D centers.

The unique balance between various properties makes **TDX-1** even superior to PU in roll applications with their demanding technical requirements as observed in steel mill rolls, Rolls made from **TDX-1** meets and exceed the performance of PU rolls because of their better resistance to hot humid acidic environment, abrasion and cut growth resistance properties, Most importantly, it is the retention of original physical properties of **TDX-1**, which shows superior performance in such applications such as **Bridle rolls, Snubber rolls, Deflection rolls or the looper rolls.**

Steel industries rolls go through severe shear stresses during their service, Thus load bearing capacity together with resistance to cut and abrasion are the most important properties for such rolls, TDX-1 and PU are identical in such applications while TDX-1 offers superior compression set resistance and long term advantage due to its better property retention capability thus offering more number of grinding opportunities leading to extended service life.

TDX-1 has a wide scope of usage in metal to rubber bonded components as well as rubber moulded components.

Description	Standard PU (Castable type)	TDX-1
Temperature Resistance	75-90°C (Some rarely available grades offer resistance upto 125 degree centigrade)	Upto 135°C
Hardness Range	75 to 95 Shore A	40 to 100 Shore A and upto 90 Shore D
Load Bearing Capacity	1000 PLI	1000 PLI
Abrasion Resistance (Din Abrasion)	35 to 85 Mg	45 to 95 Mg
Bonding Strength to Core	5-13 Kg/Cm <sup>2</sup> (Standard PU for Rollers etc.)	8-15 kg/Cm <sup>2</sup>
Acid resistance	Not Recommended in hot acid and hot humid conditions	Resistance to most acids and oils even in hot and humid conditions,
Oil Resistance	Satisfactory	Satisfactory
Compression Set	20 to 40%	10 to 20%
Thermo plasticity	To some extend Thermo Plastic	Thermo Set

Thickness Range : 6mm to 28 mm.