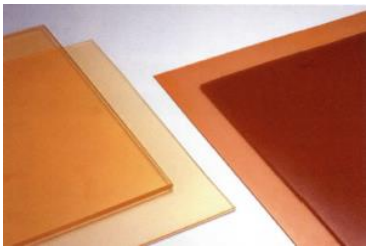
Urethane Rubber Sheet

Urethane Rubber

Ti-Prene®

Rubber-like elastic bodies obtained by the reaction of polyester or polyether with isocyanate are collectively called urethane rubber. Ti-Prene® is a trademark of our urethane rubber.



Features

Mechanical Strength

Due to its chemical structure, it has a strong secondary bond between molecules, so it has the highest strength among elastic bodies, and because of its high modulus, it is to be less deformed and can withstand heavy loads even with small objects. Due to its high hardness and high elongation, it is to be less susceptible to damage due to impact.

Abrasion Resistance

It has more than 10 times more abrasion resistance than natural rubber. It is to be superior to metal in some conditions of use.

Oil Resistance

It has excellent resistance to most oils, including petroleum-based oils. Especially excellent for mineral oil (only for use at room temperature).

Heat Resistance

The using limit temperature is 70 ° C. Avoid using continuously at 70 ° C or more.

Cold Resistance

It has rubber elasticity and mechanical strength even at -25 ° C or less.

Water Resistance

Please avoid using it in a hot and humid environment because it has the property of being easily hydrolyzed.

Ozone Resistance

It is hardly affected by ozone because it does not contain unsaturated parts in its molecular structure.

Weather Resistance

Please be noted that when used outdoors for a long period of time, the effects of water, humidity, light, etc. may cause deterioration of physical properties and discoloration.

Applications

- General packing, gasket material.
- Cushion material.
- Coupling.
- Bush.
- Scraper.
- Base material for rollers.
- Spring, dice.

- It does not meet food hygiene tests.

■ Properties : Urethane Rubber Sheet

Properties / Item Name	General Properties			Tensile Stress M_{300} MPa {kgf/cm^2}	Tear Resistance kN/m {kgf/cm}	Compression Set 70℃ × 24h %	Abrasion Loss cc/1000times	Impact Resilience %	Remarks
	Hardness Type A	Tensile Strength at Break MPa {kgf/cm^2}	Elongation at Break %						
TR 100-90	91 (89)	52.1 {531}	430	21.2 {216}	90.3 {92}	27	0.080	34	Standard material (Polyester basis)
TR 100-70	70 (69)	27.7 {283}	630	3.6 {36.7}	36.4 {37}	28	0.200	50	
TR 100-60	60 (60)	23.7 {242}	740	3.2 {33}	36.6 {37}	37	0.300	40	
TR 100-50	50 (50)	26.6 {271}	610	2.5 {26}	28.6 {29}	10	0.100	31	
TR 200-90	91 (89)	35.1 {358}	430	21.7 {221}	86.8 {89}	30	0.370	37	Standard material (Polyether basis)
TR 1000-90	90 (90)	42.0 {429}	450	16.0 {163}	74.7 {76}	24	0.080	50	Special grade (Polyether basis)

JIS K 6250

- Abrasion loss is by Akron abrasion test.
- Please consult us about various grades other than listed above.

・These products should not be incinerated wherever possible because harmful gas to humans might be generated if they are immo derately burned.
・The user is requested to confirm degree of discoloration and contamination by using sample in the case of use contacting with the other items.
・The life of these products at actual use are greatly affected by condition of the use. The user is requested to confirm it beforehand by using sample