



HIGH SOUND DAMPING RUBBER SHEET



MIN INTEGRATIONS PTE. LTD.

Technical Specifications of Min Damping acoustic rubber sheet for sound insulation

Introduction

The ability of rubber to dam sound is proven by the slowness with which the sound is propagated since sound propagation in rubber is approximately 1/70 that in steel.

1.Sound Barrier properties

According to the “Mass Law”, the sound intensity transmitted through an acoustic barrier is inversely proportional to the square of the mass per unit area of the barrier. High mass per unit area ensures that motion of the barrier induced by incident sound waves will be small, so that the transmitted energy will be small and most of the incident energy will be reflected.

If a relatively thick layer of rubber is added to a panel, it would therefore improve its sound insulation properties, and the thicker and heavier the rubber layer the better. Any damping imparted by the rubber layer will be beneficial, since it will result in lower levels of vibration of the barrier when excited at its resonant frequencies, and hence improve performance at such frequencies.

2. Impact Attenuation properties

Heavy-duty rubber flooring is often used in loading bays and distribution depots to protect sub-floor and items being handled from impact damage and to reduce operational noise

Both these attributes are a consequence of the compliance of the rubber floor, so that it reduces impact stresses by cushioning, resulting in less damage and less excitation of sound-generating vibration in the sub-floor or the items being handled.

For example, the sound pressure level 1m from the point at which a 5kg steel component, dropped from 1m, impacts on various floors:

	<u>10mm steel floor</u>	<u>concrete floor</u>	<u>15mm rubber</u>	<u>20mm rubber</u>	<u>25mm rubber</u>
SPL - DB(A)	93	89	81	75	73

Depending on the customer requirements, the rubber sheet can be supplied in various thicknesses, dimensions and hardnesses.

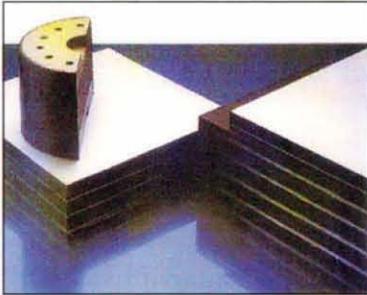
The rubber materials can be made of natural rubber, chloroprene rubber, nitrile rubber or ETDM basing on the application conditions.

Physical Properties of high damping rubber insulation sheet

Rubber Material : Oil resistant and high strength chloroprene rubber

<u>Properties</u>	<u>Specification</u>
Hardness (Shore A)	65
Damping (%)	10% Min
Tensile Strength Mpa	11 Min
Elongation at break %	300 Min
Compression set after 22h/70 degree C	25 Max
Ageing Resistance after 70 degree C/168HR	
Change in hardness %	15 Max
Change in tensile strength (%)	30 Max
Change in elongation at break (%)	30 Max
Resistance to UV light	Excellent

Also Available In Our Delivery Programme Include :-



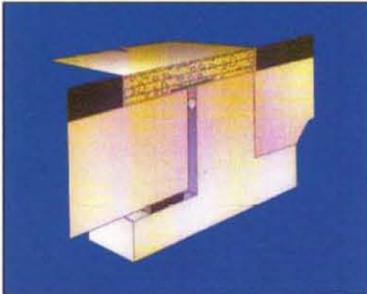
Elastomeric Bearings



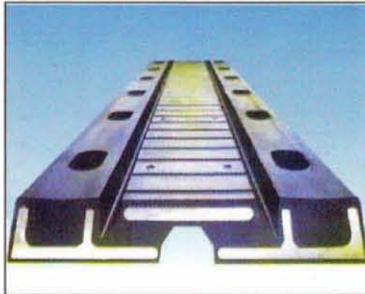
Rubber Dowel Caps



Rubber Seismic Bearings



Asphaltic Joints



Multiflex Expansion Joints



Rubber Bearing for oil & gas application



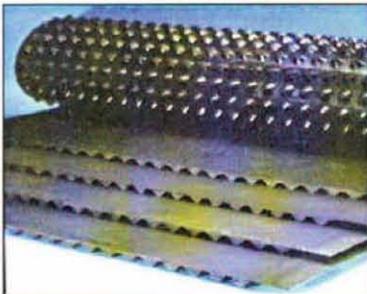
Rubber Shear Fenders



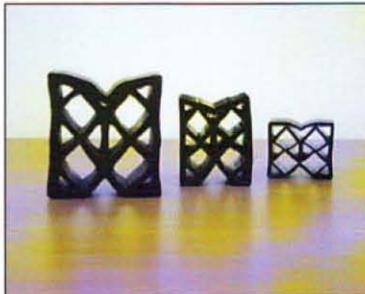
Rubber Water Stop



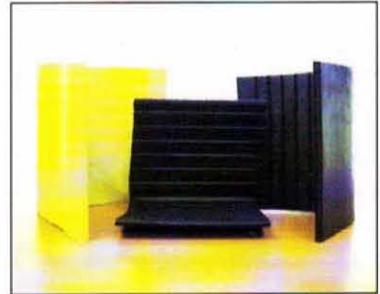
Rubber Fender



Rubber pad for rail track system



Compression Seals



Corner Guard



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