

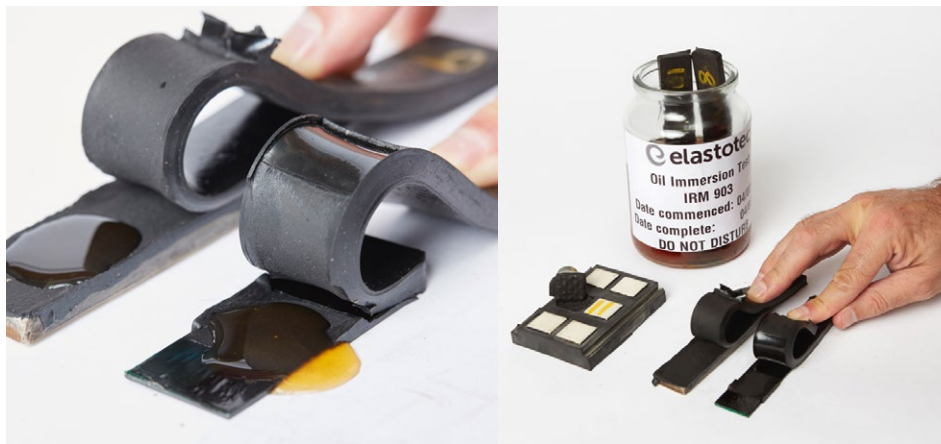
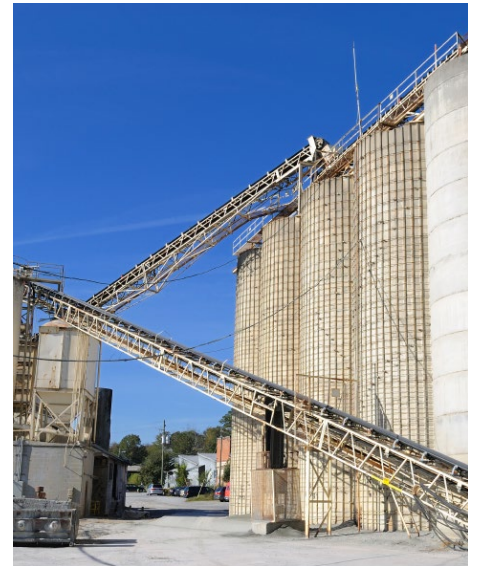
FRAS OIL RESISTANT LAGGING

Why use oil resistant ceramic lagging?

- Longer Service Life when handling oily materials such as bitumen, tar sand and various grains.
- Resists tile loss due to oil resistant bonding system
- Resists debonding of the lagging from the pulley shell due to oil resistant bonding system
- Reduces operating costs
- Elastotec developed bonding system and application procedure and “Approved Applicators” ensures a reliable result.

Features & Benefits

FEATURES	BENEFITS
Oil Resistant Rubber backing	Resists degradation in contact with oil
Oil Resistant Bonding System	Resists tile loss and debonding from the pulley shell
Hot Vulcanised Bonding	Rubber tear adhesion to the pulley
High Performance Al ₂ O ₃ tiles	Resists wear and cracking
Rolls or strips to suit pulley face width	Convenient, reduced stock and lead time



Aluminium Oxide Tile Specification

Aluminium Oxide	>95%
Vickers Hardness	>1000
Fracture Toughness (MPa.m ^{1/2})	>4.5
Abrasion Resistance (ASTM G65)	<1.0 % Mass loss by abrasion

Rubber Specification

Polymer	100% Oil Resistant polymer
Tensile Strength (MPa)	15.7
% Elongation	450
Hardness (Shore A)	65
Adhesion to Ceramic (N/mm)	>10.0 (100% Rubber Tear)
Adhesion to Steel (N/mm)	>10.0 (100% Rubber Tear)



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CHEMICAL RESISTANCE

The Elastotec OR FRAS pulley lagging exhibits good general oil resistance to common grain and vegetable based oils. Table 2 provides details of this oil resistance as well as a comparison with Natural Rubber & Styrene Butadiene Rubber. Elastotec OR FRAS lagging is not recommended for use with oils where volume swell exceeds 20%

OIL	OIL RESISTANT FRAS	NATURAL RUBBER	STYRENE BUTADIENE RUBBER
	Volume Swell%	Volume Swell%	Volume Swell%
Corn Oil	10-20	>100	>100
Cotton Seed Oil	10-20	>100	>100
Linseed Oil	5-10	>100	>100
Olive Oil	5-10	>100	>100
Peanut Oil	10-20	>100	>100
Pinene	10-20	>100	>100
Pine Oil	>100	>100	>100
Rapeseed Oil	5-10	>100	>100
Soybean Oil	5-10	>100	>100
Terpineol	>100	>100	>100
Tung Oil (China Wood Oil)	5-10	>100	>100
Terpentine	>100	>100	>100
Vegetable Oil	10-20	>100	>100
White Pine Oil	>100	>100	>100
White Oil	5-10	>100	>100
Wood Oil	5-10	>100	>100
Asphalt	5-10	>100	>100

BONDING SYSTEMS

Elastotec OR FRAS can be supplied with either a Cold Vulcanised (CV) Bonding Layer or alternately a Hot Vulcanised (HV) Bonding Layer. For new pulleys or refurbished pulleys where the lagging will be done in a factory setting the HV Bonding is the preferred method as this provides a 100% rubber tear bond.

For pulleys that require lagging application in situ on the conveyor the CV Bonding system is the only option. It is important that the CV application is done using 100% Neoprene adhesive as this will have similar oil resistance to the OR FRAS lagging. The use of adhesives based on other polymers must be avoided as these may be prone to deterioration in contact with oil.

PRODUCT SIZES

Rubber lagging available in:

Thickness:	10,12,15 & 20 mm
Roll Length	6.5 m, 50 m and 85 m.
Roll Width	250 mm

OR FRAS is also available on all the Elastotec Ceramic lagging products.