sempertrans®
A MEMBER OF THE SEMPERIT-GROUP

STORAGE AND HANDLING OF **UNCURED SPLICE & REPAIR MATERIAL FOR CONVEYOR BELTING**

YOUR GUIDELINE

SEMPERTRANS

places the utmost importance on the quality of its conveyor belts.

For optimised belting performance and longer service durability, follow our recommendations inside.

1 Purpose

This guideline describes the recommended procedure for creating optimal conditions for storage and handling of Sempertrans Splice Kits and Repair Materials. Only correct storage and handling guarantees reliable functioning of the goods.

2 Range of application, range of validity

This procedure is valid across the entire Sempertrans product portfolio. It should be followed from dispatch of goods, to storage on-site and the eventual use of the materials.

3 Main responsibility

The customer and all parties involved in the handling and storing of Sempertrans materials are responsible for ensuring that the recommendations provided in this guideline are complied with.

4 Procedure/specifications

Storage and handling of Sempertrans materials must be managed according to the following instructions and in compliance with the International Standard ISO 2230:2002. This document has been written with cross reference to that document.

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4.1 Safety

Sempertrans Splice and Repair Materials are made up of uncured rubber, solutions and solvents. Solvents can only be supplied when transport regulations and applicable local laws allow it.

The storage of solution and solvents should be in accordance with the Safety Data Sheet (SDS) and any other local laws or regulations that are required to meet safe practice. SDS are available upon request.

4.2 Uncured Rubber Contents

The uncured rubber parts of a splice and repair kit are usually in the following form:

4.2.1 Steel Reinforced

- Core/Bonder/Intercord rubber in noodle/rib form
- Core/Bonder rubber in sheet form
- Cover rubber in sheet form
- Rubberised breaker

! NOTE: The following Sempertrans conveyor belts are manufactured by using steel: Sempercord, Metalcord, Metaltrans, Autostable-M, Transpipe-ST, Ripstop-M, Translev-M and Transrigid-ST

4.2.2 Textile Reinforced

- Skim/Adhesion rubber in foiled sheet form
- Cover rubber in strip/sealer/saddle form

! NOTE: The following Sempertrans conveyor belts are manufactured by using textile: Multitrans, Flextrans, Autostable-T, Transpipe-T, Ripstop-T, Translev-T, Transunit, Transprofile, Biathlon, Transglis

4.3 Packaging

The materials will be custom packed to suit the quantity being shipped. Solutions and solvents are supplied in the applicable UN rated metal containers and packed to meet requirements for the shipment of dangerous goods by road, sea or air, whichever is applicable.

There are several types of packaging used:

Fibreboard Boxes (Textile)

Reinforced Cartons (Textile and steel)

Wooden Boxes (Textile)

Wooden Crates (Textile, steel and dangerous goods)

4.4 Storage and Shelf Life

The table below shows the recommended storage and shelf life time (starting from date of manufacture) for our uncured rubber products. These are based on storage conditions where the products are not opposed to direct sunlight/UV, away from ozone generating electrical items/motor, free from moisture, dust, grease and where they are ideally in a closed or ventilated room that is kept at an ambient temperature of 20°C +/-5°C (or 68°F +/-9°F) and relative humidity at 40-70%. Additionally we recommend that materials are kept in the packaging they were supplied in as this acts as another layer of protection.

It is possible to double the shelf life if proper controlled and continued cold storage of uncured rubber materials can be maintained at +10°C +/-4°C (+50°F +/-7°F). We do not recommend to freeze the products.

Sempertrans Cover Quality		Splice and Repair Materials Shelf life in months		
		Cover rubber	Skim/core rubber	Solution
Transdura (anti-abrasive)	X+, D50, D30, D, H, D1, L, DIN-X, DIN-Y, DIN-W, RMA-I, RMA-II, AS-M, AS-N, AS-A, M24, M20, N17, XCG-M	6		
Transflam (flame retardant)	K, K+, CW, S	6		
	T	6		
	FH, FX	6		
	MSHA B.E.L.T., FR, FR+	1		
	TG(V)	1		
	FRAS-S	1		
	MSHA-2G	6		
Transtherm (heat resistant)	TEA	6		
	TEB	3		
	UHR	3		
	TEC & T2	3		
Transoil (oil and grease resistant)	G, GK, GS, OR	6		
	GM	6		
	GMK, GMS	6		
TransEvo (energy saving)	TransEvo-Ultra	6		
	TransEvo-X	6		
	Trans-Evo D50	6		
	TransEvo-K	6		
	TransEvo-V	1		
Transcold (cold resistant)	R & KR	6		
	GMR	6		

4.5 Transportation

Given the potential list of known factors which can negatively affect material shelf-life we would always recommend that all materials are shipped using a temperature controlled unit. This is in-line with our storage recommendations above. This is particularly relevant for those materials which will endure long transit times from source to site and potentially pass through a number of destinations and logistic providers.

4.6 Signs of Deterioration

4.6.1 Uncured Rubber

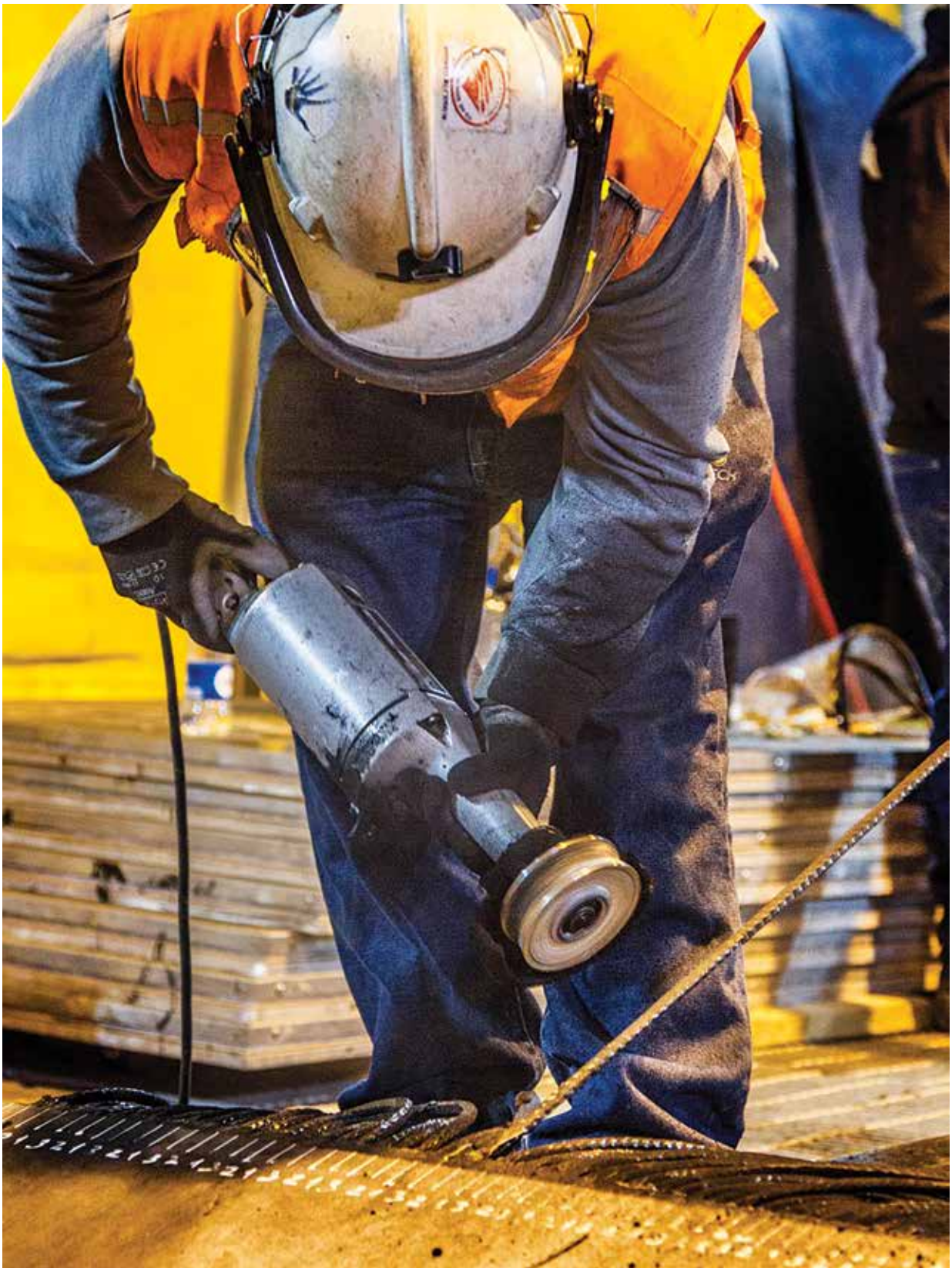
The two main issues are when uncured rubber products start to either vulcanise or some of the components of the compounds migrate to the surface of the rubber sheets. In isolation the migration issue can cause a coat (efflorescence) on the surface. If left untouched the coating can contribute to poor adhesions in the splice. It is typical that such a coating can be removed with a wipe of a suitable solvent, such as Toluene. Solvent though has to completely dry/evaporate before the uncured rubber can be used again. Due to the different local restrictions on the type of solvents allowed in a country and their transportation across borders, customers would have to source solvent locally themselves.

The greater concern for useable quality of uncured rubber products is when the vulcanisation process has started. In this instance the products lose their inelastic qualities and become elastic. Extended exposure to temperatures over and above those mentioned earlier in this document will increase the likelihood of this initial vulcanisation process. If there are any concerns over the usability of uncured rubber products the only true way to verify their quality is to test them on a rheometer in a laboratory. Another crude method sometimes employed is to pull/stretch the compounds by hand. Logic being that if the uncured rubber is elastic and returns to its original shape, or close to it, then the compound has started to vulcanise and should **NOT** be used. New materials would need to be sourced.

It should be noted that migration and vulcanisation are the only two forms of deterioration caused due to a physical change in the compounds properties due to external influences. Deterioration due to contamination by such things as dust, grease, moisture, oil etc may not change the physical properties of the rubber but the contaminants themselves can adversely affect splice quality and strength. Therefore when contamination has occurred, materials should also **NOT** be used.

4.6.2 Solutions

In terms of deterioration of the solutions incorrect storage will lead to the solutions thickening and generating a "lumpiness" to them. Whilst on occasion the agitation (stirring) of a solution will return it to the correct viscosity, we would always recommend that when faced with such a scenario new solutions are purchased. Any solution should always be stirred prior to use to ensure that all ingredients are well mixed.



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