High temperature - Free of chlorinated solvents

TRS HARDENER TRISO is a CFC's free hardener specially designed to be used with the TRS' cold vulcanizing systems when you need to work in areas where the continuous temperature is around 100 °C.

## **SCOPE**

TRS HARDENER TRISO is a CFC's free hardener specially designed to be used with the TRS' cold vulcanizing systems when you need to work in areas where the continuous temperature is above 80 °C.

TRS HARDENER TRISO can be used with hydroxyl - polyurethane, polychloroprene, natural and synthetic rubber adhesives as a crosslinking agent. As TRS HARDENER TRISO largely does not affect the colour of the adhesive film even when exposed to light, it is also suitable for the bonding of bright coloured footwear.

TRS HARDENER TRISO is Chlorinated Solvents free.

## **PHYSICAL PROPERTIES**

Basis	Thiophosphori	c-tris-(p-isocyanato-phenyl ester)
Solvent System	Ethyl Acetate.	Free of CFC's
Colours	<ul><li>Almost colourl</li></ul>	ess to light-colour clear liquid
Brookfield Viscosity RVT (Sp1, 20 rpm, 20 °C) - UNE 12092	➤ 13 mPa·s	
Kinematic Viscosity 20 °C	14 cSt	
% NCO - UNE-EN ISO 11909	$7,2 \pm 0,2$	
Flash Point - DIN 51755 - method: closed cup	Approx4 °C	
Shelf life	Min. 24 month	s at room temperature

#### **STORAGE**

Shelf life of unopened containers is 2 years after production date when stored under conditions according to DIN 7716.

## **SAFETY**







### DANGER

H225 Highly flammable liquid and vapor. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause an allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H412 Harmful to aquatic life with long lasting effects.

EUH208 Contains 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate, Phenyl isocyanate. May produce an allergic reaction.

For safety instructions for transport, manipulation or storage please read and understand the Material Safety Data Sheet.

### **PACKAGING SIZES**

TRS HARDENER TRISO				
TRS code	Description	Pieces/carton	Quantity/Palet	
700610	TRS HARDENER TRISO 30 g	10 bottles	720 cartons - 7290 units	







# HARDENER TRISO

COLD VULCANIZING HARDENER
High temperature - Free of chlorinated solvents

## **APPLICATION**

### **Two-component adhesives:**

After the addition of **TRS HARDENER TRISO**, the ready-to-use double-component adhesive should be applied within a period (pot life) which is determined not only by its content of rubber, but also by the other ingredients of the formulation (e.g. resins, antioxidants, solvents, etc.). If the adhesive is not used within this period, it may become increasingly difficult to apply and its viscosity increases rapidly until irreversible gelling ultimately occurs.

It is important to assure the perfect blend between the glue and the hardener stirring with a non-metallic stirrer for at least two minutes.

## **Dosage guidelines:**

For cross-linking of 100 parts by weight of adhesive based on:

Graft-Chloroprene (rubber content approx.16%)	→ 3-5 p.b.w. TRS HARDENER TRISO
Chloroprene rubber (rubber content approx.20%)	► 5-7 p.b.w. TRS HARDENER TRISO
Hydroxyl polyurethane (PU content approx. 15%)	◆ 4-7 p.b.w. TRS HARDENER TRISO
Hydroxyl polyurethane (PU content approx. 20%)	→ 3-5 p.b.w. TRS HARDENER TRISO

## **Solvent compatibility:**

TRS HARDENER TRISO can be diluted with anhydrous and alcohol-free ethyl acetate dichloropropane, trichloroethylene, acetone, methyl ethyl ketone, toluene, and other solvents. Adding relatively large proportions of aliphatic hydrocarbons can result in turbidity, but the solutions of natural rubber in aliphatic hydrocarbons show good compatibility with TRS HARDENER TRISO without adding other solvents.

Our technical advice - whether verbal, in writing or by the way of trials - is given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended processes and uses.

Application use and processing of the products are beyond our control and, therefore, entirely your own responsibility. If, despite this, liability should be established for any damage, it will be limited to the value of the goods delivered by us and used by you. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery.



