

TRS 4004 COLD VULCANIZING CEMENT

Free of chlorinated solvents

TRS 4004 Cold-vulcanizing adhesive is TRS' system for cold splicing and cold repair of rubber conveyor belts when a non-flammable product is not required. By using **TRS 4004** with **TRS Hardener 1000 E** or **TRS 100 TRISO** Hardeners you can also work in all areas of wear and corrosion protection are needed.

Scope

TRS 4004 is a two-component cold vulcanizing adhesive based on polychloroprene rubber (CR) specially designed to bond rubber with rubber, rubber with fabric, rubber with metal, fabric with fabric or metal with fabric.

A very important field of application is belt repairing with **TRS Diamond Repair Patches** and **TRS Repair Strips**.

Physical Properties

Basis	Polychloroprene rubber (CR)
Solvent System	Ethyl Acetate, Cyclohexane
Colours	Dark Grey, White
Brookfield Viscosity RVT (Sp4, 20 rpm, 20°C) – UNE 12092	3200 ± 500 mPa.s
Kinematic Viscosity	3500 ± 550 cSt
Flash Point	Approx. -10°C
Oil Resistance	Excellent
Application Temperature	+10°C to +40°C
Environmental and Materials Temperature	+ 5°C to 45°C (minimum 5°C above the dew point)
Thermal stability - UNE EN 12964	Max. 70°C constant
Open Time UNE EN 14022 met 4 – Temp. (15-30°C)	15 – 20 minutes
– Temp. (more than 30°C)	8 – 12 minutes
Pot Life (3% Hardener TRS HARDENER 1000 E) - UNE EN 14022 MET 3	Approx. 2 hours @ 20°C
Coverage	680 g/m ² with 2 layers or 340 g/m ² per layer
Shelf life	At least 24 months after production date

Mixing instructions

It is normal that **TRS 4004** has a little of sedimentation at the bottom of the can or drum. If so, to be sure that you do not lose this critical component it is recommended to stir it with the aid of a non-metal and non- round stirrer made of wood or plastic, before to add the Hardener for at least 2 minutes. Please do not scrape off the spatula that you use to inspect the bottom of the can on the edge of the can losing this material

Once you have a homogeneous adhesive, usually around 2 minutes stirring, you can add the Hardener, it is recommended our **TRS Hardener 1000 E** (3 – 5% in weight = 20:1) and stir for at least 2 minutes.

Application

1.- Conditioning the materials

Before to begin to work over the materials, be sure that you have all of them inside the correct temperature and humidity application conditions. If possible, let the materials in the working zone to assure this.

Pay special attention to humidity, should not exceed 80%, and the substrate temperature must be at least 5 °C over the dew point to avoid surface condensation of water.

2.- Surface preparation

In general, the surfaces to be bonded must be clean, dry, and free of oil, paint, or other kind of contamination. If not, you should clean previously with **TRS Cleaning Solving MEK**.



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Rubber without bonding layer

Buff the surface of the rubber using a grinder. The rougher the surface, the better the adhesion. Pay attention to not scorch the rubber. Scorched rubber cannot be glued.

Use only slow running angle grinders for buffing rubber and very rough buffing discs (ex. Silicium carbide - P24). The rougher the buffed surface the bigger is the surface you are coating with **TRS 4004** and of course the better the final adhesion.

Once the surface is buffed, remove dust in dry avoiding the application of any kind of solvent after buffing.

Rubber with bonding layer

Fresh bonding layer: Wash the surface with **TRS Cleaning Solvent MEK** and let it dry.

Dry bonding layer: Prepare the surface as if it had not bonding layer.

Metal

Be sure that the metallic surface is degreased and free of any kind of contamination. If not, wash the surface with **TRS Cleaning Solvent MEK** and let it dry.

Buff the surface of the metal using an angle grinder with rough buffing disc (ex. Ceramic – P24). Remove all dust dry.

Fabric

In this case depends on every fabric (treatment, weight and weave) but, in general, clean and let it dry.

3.- Application

It is strongly recommended to always apply two layers of the product to every surface. The first layer acts as a primer, so it is important that it has to be totally dry before applying the second layer.

In case of the metal surfaces, it is recommended to apply as a first layer **TRS Metal Primer**. It is proven that the application of the **TRS Metal Primer** can improve the resistance and the reliability of the bonding.

It is always important to let at least 1 hour (20°C) before applying the second layer. If possible, it is recommended to apply the first layer the day before.

Apply the product with the help of a brush or a nap roller. It is important to apply a thin and even layer. The scrub-like motion when working with a brush can help us ensure this by avoiding leaving air in the polished surface voids.

The second layer is always glue (also in metal). Apply a uniform and thin layer of glue with the help of a brush. As it has been done the same treatment to both surfaces, drying process will be uniform.

After around 10 minutes, the surfaces are dry to a tack and ready to bond (check it with the back of the hand). Join surfaces and, with a hand-held roller, roll from the centre to the edges applying pressure to bond surfaces together. Working this way eliminates the air avoiding the formation of bubbles on the joint.

Storage

Shelf life of unopened containers is 2 years after production date when stored under conditions according DIN 7716. Temperatures below 5 °C can cause a reversible change in the structure of the rubber compound, increasing the viscosity of the glue that can jellify. It is not possible to use the glue under these conditions because the adhesive is so thick that cannot wet the surfaces to bond. If the cement arrives to this point, the solution is to put the containers at room temperature and let them time to recover, without trying to heat or stir it.

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Safety



TRS 4004 contains hazardous ingredients: ethyl acetate; Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics; rosin colophony. It is classified under CLP regulation.

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

Packaging sizes

TRS 4004 Dark Grey

TRS code	Description	Pieces/carton	Quantity/Palet
302900	TRS 4004 - 750 mL	10 cans	49 cartons – 490 units
302910	TRS 4004 - 4,7 Kg	4 cans	27 cartons – 108 units
302905	TRS 4004 - 200 L / 180 Kg	1 drum	2 drums

TRS 4004 White

TRS code	Description	Pieces/carton	Quantity/Palet
302600	TRS 4004 - 750 mL	10 cans	49 cartons – 490 units

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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.