

TECHNICAL INFORMATION
SWARCOPLAST Tex



SWARCOPLAST Tex

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Important Information:

Please consider our General Terms and Conditions and the general notes of the Technical Information Sheet! No liability is accepted for any errors! The information is provided to our best knowledge and experience. This information is, however, no warranty for any properties of the material. We provide this information without obligation, also regarding the rights of third parties. The user has to make sure that the material is appropriate for the respective application.

1 Main characteristics

SWARCOPLAST Tex...

- belongs to the group of solvent-free, multi-component, reactive systems
- consists of two components which – through chemical interaction – form a duroplastic compound and cannot be thermally plastified thereafter
- is formulated with particular elasticity and is especially used for large scale coatings
- is suitable for bike lane markings at intersections with high traffic volumes
- does not need any additional drop-on materials, due to its excellent skid resistance properties
- is suitable for all bituminous surfaces and also for concrete surfaces (primer required)
- manual application possible with scraper or trowel

2 Technical Data

Color	Traffic red approx. RAL 3020 other colors on request
Density	Approx. 1.86 kg/l +/- 0.06 depending on color
Potlife	5 - 10 min. (depends on hardener quantity, air – and material temperature)
Solvent content	Solvent-free, do not add solvent
Solvent for cleaning	Special cleaner for marking machines Art.-No.: 3086
Drop-on material	does not need any additional drop-on materials, skid-resistance aggregates already mixed in
Storage stability	6 months (unmixed), in sealed original packaging; protect from frost and direct sun light
Trafficability / curing time	Approx. 30 – 40 min. Depends on climate conditions (temperature, humidity, wind) material, layer thickness and road surface. In general, the marking's trafficability must be checked before it is exposed to traffic.
Standard packaging	SWARCOPLAST Tex: tin container with 10/16/25kg filling weight Other containers / filling weights on request Hardener: in PE-bags, filling weight corresponding to mixing ratio and container content Attention: all hardener types are organic peroxides – they must be transported and stored separately from the cold plastic in special containers (special cartons and boxes)
Identification	The regulations and instructions concerning appropriate transport, handling, storage, first aid measures, toxicology and ecology are stated in our material safety data sheet! The instructions stated on the product label and in the MSDS must be followed.
VOC (accord. to ASTM 2369 – 1)	4.8 +/- 0,5 (g/l) (Test report no. 190014714)
Processing temperature	min. + 5°C
Surface temperature	+ 5°C to + 45°C
Relative humidity	max. 75% (dew point spreadsheet is to be regarded)
Thickness to be applied	approx. 3 mm
Theoretical consumption	Approx. 5.58 kg/m ² depending on color Actual consumption depends on applied thickness, application technique (squeegee, trowel or roller), type and state of the surface.

3 Mixing ratio / Application techniques / Hardener

Product	Art.-No.	Techniques	Hardener type
SWARCOPLAST Tex traffic red SWARCOPLAST Tex colored	583020 58.... RAL....	Open mixing system Manual application (trowel, squeegee)	Hardener powder
Mixing ratio: reactive component / base component (SWARCOPLAST Tex) : Hardener powder (BPO) = 100 : 1			
Between October and April SWARCOPLAST Tex is delivered in winter formulation, due to weather conditions			

4 Processing instructions

4.1 Preparation of material and application techniques

SWARCOPLAST Tex must be homogenously stirred in the original container before processing. The hardener (hardener powder) is mixed with the base component at the indicated mixing ratio using an appropriate stirring device. Use just the quantity needed for the next marking job.

Cold plastic products (reactive systems) are solvent-free and must be applied without adding any solvent (for optimizing of application properties, see 4.2.).

The cleaning must occur before the material has cured completely, using special cleaner for marking machines (Art.-No.: 3086).

The theoretical consumption for this material is listed in the table "Theoretical consumption of material and drop-on material" on our website in kg/m² as well as in kg/km of line to be marked depending on typical line width.

4.2 Optimizing application properties of cold plastic

4.2.1 General information

The application properties and reactivity of the material depends on cold plastic, air and surface temperatures. Proper storage conditions partly improve application conditions. Within a limited extend viscosity and reactivity / curing time can be adjusted to processing conditions.

Attention: use methods described in 4.2.2 and 4.2.3 regarding agent quantities. When exceeding the mentioned quantities and simultaneous usage of two or more methods (agents) grave consequence of application properties or traffic technological properties will occur.

4.2.2 Viscosity

Increase of viscosity (e. g. high material, air and surface temperature): add a max. of 0.2 % thixotropic agent (Art.-No.: RH13700 solid or RH10459 liquid).

Reduction of viscosity (e. g. low material, air and surface temperature) add a max. of 1% condenser (Art.-No.: 3044).

Attention: Add the needed agent quantity to the required amount of material for application only, otherwise viscosity or settle properties can change.

4.2.3 Reactivity / curing time

Acceleration of reactivity / curing time (e. g. spring/autumn application jobs with low temperatures)

- a) addition of max. 0.2 % accelerator for cold plastic (Art.-No.: 8060) or
- b) increase powder hardener quantity up to max. 2% by weight percentage

Retarding of reactivity / curing time (e. g. high temperatures in the summertime)

- a) add a max. of 0.2 % retarder (Art.-No.: 8050) or
- b) reduce hardener quantity but not below 0.5% by weight percentage for hardener

5 Surfaces / pretreatment

5.1 General information

The surface must be dry, clean and free from grease, oil and loose gravel and other contaminations. The surface and potentially existing old markings must be checked for their carrying capacity and compatibility with the material to be applied. In case of doubt, test applications and adhesion tests are required. Ideally old markings should be removed with appropriate mechanical procedures.

5.2 Concrete or cement-bound surfaces

Pavement components that prevent good bonding – especially on new concrete – such as fine mortar layers, concrete slurries, concrete after-treatments as setting retarders, paraffins, silicate-based impregnations, etc. must be appropriately removed (e.g. with high pressure waterjet, fine millcut or similar). We recommend conducting test applications. In case of doubt contact us in written form.

Before applying SWARCOPLAST Tex, concrete or cement-bound surfaces should be pretreated with primers:

- a) using spray technique (paint spray machine) with 2-C EP Primer (Art.-No.: 8609000) or
- b) manually (roller) with 2-C primer B71 for concrete (Art.-No.: 8010)

It is essential to have a sufficient und uniform coverage with primer in order to obtain an optimum bonding of the cold plastic and the concrete. Primer consumption may vary depending on the concrete's porosity. The moisture of concrete must not exceed 4% when applying 2-C primer B71 for concrete. Primers based on epoxy resins are suitable for residual moisture surfaces. Primers diminish formation of bubbles that are likely to occur when concrete surfaces are not primed.

5.3 Bituminous surfaces

Any loose components such as chippings must be removed. Special agents used in new pavement asphalt (e.g. fluxoils, parting agents) are detrimental to good bonding of markings or may cause discoloration. Since these components are hardly removable with mechanical means, the surface should be exposed to traffic for 4-6 weeks prior to the application. Bonding checks are obligatory. If required before application of SWARCOPLAST Tex a thin primer layer (max. 200 µm) K815 for bike lanes should be applied to avoid bleeding.

5.4 Cobbled pavement

Natural, artificial and compound stone pavements are non-static surfaces and not suitable for bike lane markings with thick layers. No guarantee is given in cases of: crack formation, chippings caused by the movement of pavement parts, poor bonding (e.g. natural or artificial stones), penetration of moisture, wear of marking. Therefore, cobbled pavements are not suitable for SWARCOPLAST Tex markings. Cobbled pavements require an expensive pretreatment (see: General Information of Technical Information sheets).

5.5 Floor coatings

For markings on floor coatings our SWARCO SAFETY-LINE products should be used.

6 Application techniques

Manually with scraper, trowel or other suitable devices. SWARCOPLAST Tex is mixed homogenously with hardener powder. Then the mixed Textured Cold plastic is applied by using a trowel while applying some pressure to get a rough surface structure. For the reduction of trowel marks either add max. 1 % Condenser for cold plastic (Art.-No. 3044) or use a roller for smoothing out trowel marks. Therefore, the roller should be wetted with Textured Cold plastic.

Attention: Due to its limited potlife, Textured cold plastic should be applied without any delay to get an optimal roughness and structure. If the trowel is applied too often over the material, surface defects may occur.

For fresh bituminous surfaces, pre-priming with K815 for cycle lanes is recommended to prevent bleeding.

6.1 Field test reports

Test report-no.	Stretch	Traffic exposure	Layer thickness	Bead type	Skid resistance / SRT value
None	Lüneburger Str. / Hamburger Str., Bremen	22 months	3 mm	none	65
None	Lüneburger Str. / Hamburger Str., Bremen	48 months	3mm	none	65