

TECHNICAL INFORMATION
ROLLER PLASTIC RP 15
FOR BICYCLE LANES



ROLLER PLASTIC RP 15 FOR BICYCLE LANES

Art.-No.: 573020 traffic red
 573013 tomato red
 Art.-No.: 57....RAL....

Version: 2018-06-18

1	Main characteristics /Field of application	4
2	Technical Data	4
3	Mixing ratios / Application techniques / Hardener	5
4	Processing Data	5
4.1	Preparation of material and application Instructions	5
4.2	Optimizing of application properties of cold plastic	5
5	Surfaces / pretreatment	5
5.1	General information	5
5.2	Concrete or cement-bound surfaces	6
5.3	Bituminous surfaces	6
5.4	Cobbled pavement	6
5.5	Floor coatings	6
6	Application techniques	7
7	Euroconsult - results.....	7
7.1	Table 1: Euroconsult – results according to EN 1871	7

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

www.swarco.com/rms

SWARCO LIMBURGER LACKFABRIK GmbH, Robert-Bosch-Straße 17, D-65582 Diez, Germany

T. +49-6432-9184-0, F. +49-6432-9184-18, E. info.limburgerlackfabrik@swarco.com

Managing Director: Dr. Harald Guder

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 /Field of application

Roller plastic RP 15 for bicycle lanes...

- belongs to the group of solvent-free, pluri-component, reactive systems
- consists of two components (basic component and hardener) which – through chemical interaction – form a duroplastic compound and cannot be thermally plastified any more
- is formulated with particular elasticity and is used especially for large scale coatings
- is suitable for bicycle lane markings at intersections with frequent traffic impact. For sections with permanent traffic bicycle lane markings with more thickness are recommended
- is characterized by excellent skid resistance and does not require any further drop-on materials
- is suitable for both bituminous surfaces (e.g. mastic asphalt, asphalt concrete) and for concrete surfaces (primer required)
- is applied manually with scraper or trowel and roller
- tested according to EN 1871, standard colors (x,y), luminance factor (β), UV-resistance ($\Delta\beta$) and elasticity (Shore D)

2 Technical Data

Color	Traffic red approx. RAL 3020, tomato red approx. RAL 3013, red brown approx. RAL 8012, other colors on request
Density	approx. 1.80 – 2.00 kg/l depends on color
Potlife	5 – 10 min., depends on hardener quantity, air- and material temperature
Solvent content	Solvent-free, don't add solvent for applying
Solvent for cleaning	Special cleaner for marking machines Art.-No.: 3086
Storage stability	6 months, unmixed in sealed original packaging and sheltered from frost and direct sun exposure
Overrollability/ curing time	Depends on climate conditions (temperature, humidity, wind) material, layer thickness and road surface. In general the markings' overrollability must be checked before exposing them to traffic impact
Standard packaging	<p>Roller plastic RP 15: tin foil container with 10/15/25 kg filling weight</p> <p>Hardener powder: in PE-bags, filling weight corresponding to mixing ratio and container content</p> <p>Attention: all hardener types are organic peroxides – they must be separately packaged, transported and stored from the cold plastic in special containers (special cartons and boxes)</p>
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.
Processing temperature	Min. + 5°C
Surface temperature	+ 5°C to + 45°C
Relative humidity	max. 75% (dew point spreadsheet has to be regarded)
Layer thickness	1 – 1.5 mm
Theoretical consumption	Approx. 1.8 – 3.0 kg/m ² (up to 4.0 kg/m ² depends on surface structure), Actual consumption depends on applied thickness, application technique (squeegee, trowel or roller), type and state of the surface.

3 Mixing ratios / Application techniques / Hardener

Product	Article-No.	Technique	Type of hardener
Roller plastic RP 15 traffic red Summer formulation Winter formulation Roller plastic RP 15 RAL	573020 573020W 57....	Open mixing system Manual application (squeegee, roller...)	Hardener powder
Mixing ratio: reactive component / base component : Hardener powder = 100 : 1 <small>(Roller plastic RP 15) (BPO)</small>			

Between October and April Roller plastic RP 15 is delivered in winter formulations, due to weather conditions.

4 Processing Data

4.1 Preparation of material and application Instructions

Prior to application Roller plastic RP 15 must be stirred in its original container until of even consistency. Use only the quantity needed for the next marking job. The hardener powder is then added into the base component at the indicated mixing ratio and again stirred until of even consistency.

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

Machines, tools and auxiliaries must be cleaned before the paint cures, using special cleaner for marking machines (Art.-No.: 3086).

It is important that the material must be spread evenly over the entire application.

Theoretical consumption of material is listed in table "Theoretical consumption of material and drop-on material" on our homepage in kg/m².

4.2 Optimizing of application properties of cold plastic

The application properties and reactivity of the material depend upon the temperature of the Cold plastic, air and surface. Proper storage conditions improve application conditions.

For optimizing application properties, respectively reduction of viscosity, 1-2 % Condenser for cold plastic (Art.-No.: 3044) can be added when temperatures of material, air and surface are low.

Attention: Limit the material mixed with condenser of the needed quantity, otherwise viscosity or settle properties may changing.

5 Surfaces / pretreatment

5.1 General information

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

5.2 Concrete or cement-bound surfaces

The pavement that prevent good bonding, especially on new concrete, as fine mortar layer, concrete slurries, concrete after-treatments as setting retarders, paraffins, impregnations on silicate basis etc. must be appropriately removed (e.g. with high pressure waterjet, fine millcuts or similar). We recommend conducting test applications in case of doubt communicate concerns in writing.

Before applying Roller plastic RP 15 on concrete or cement-bound surfaces they should be pretreated with primers:

- a) by spray technique (paint spray machine) with 2-component EP-primer (Art.-No.: 8609000) or
- b) manual (roller) with 2-component primer B71 for concrete (Art.-No.: 8010)

It is essential to have sufficient and uniform coverage with primer in order to obtain optimum bonding of the Roller plastic RP 15 and the concrete. Primer consumption may vary depending on the concrete's porosity. The humidity of the concrete must not exceed 4% when applying 2-component B71 concrete primer. Primers based on epoxy resins are suitable for residual damp surfaces.

5.3 Bituminous surfaces

Any loose components such as chippings must be removed. Special agents used in new pavement asphalt (e.g. fluxoils, adherents) are detrimental to good bonding of markings and can cause discoloration. Since these components are hardly removable mechanically, the surface should be exposed to traffic for 4 – 6 weeks. If required before application of Roller plastic RP 15 for bicycle lanes a thin primer layer (max. 200 µm) K815 for bicycle lanes should be applied to avoid bleeding.

5.4 Cobbled pavement

Natural, artificial and compound stone pavements are loose surfaces that move. Basically these are not suitable surfaces for Roller Plastic RP 15. No guarantee is given in cases of: crack formation, chippings caused by the movement of pavement parts, poor marking bonding (e.g. natural or artificial stones), penetration of moisture, wear of marking, It is assumed that marking bonding is sufficient. In case of doubt test applications are necessary.

Cobbled concrete pavement:

Before application of Roller plastic RP 15 takes place, 2-component primer B71 for concrete (Art.-No.: 8010) must be applied.

Cobbled pavement (natural or artificial stones)

First apply 2-component primer B55 for cobbled pavement (Art.-N.:8011). Secondly apply Pavement mortar (Art.-No.: 5232....) uniformly covering the area, (an even surface is required). The overhang of the Pavement mortar area compared to the Roller plastic RP 15 area should be 2-3 cm. After curing of the Pavement mortar the Roller plastic RP15 can be applied.

The actual consumption of the above mentioned products depends on the type and state of the cobbled pavement.

5.5 Floor coatings

For markings on floor coatings our indoor marking products should be used.

6 Application techniques

Manually with scraper, rubber squeegee, trowel or screed box. Roller plastic RP 15 mixed to an even consistency with hardener powder can be distributed uniformly with a scraper and adjusted to the required layer of thickness. A uniform, well-shaped surface structure is then created with a lamb's wool roller.

Attention: Due to limited potlife the Roller plastic RP 15 should be applied without any delay. Surface defects may occur if roller application is undertaken too late.

7 Euroconsult - results

7.1 Table 1: Euroconsult – results according to EN 1871

Report-no.	RAL no.	luminance factor β	$\Delta\beta$ for UV	Shore D
EXP 2588/18-3574A1	9016	0.86	< 0.05	38
EXP 2588/18-3575	1023	0.71	< 0.05	37
EXP 2588/18-3576	2009	0.36	< 0.05	36
EXP 2588/18-3573	3020	0.22	< 0.05	37
EXP 2588/18-3577	5012	0.22	< 0.05	37
EXP 2588/18-3578	6024	0.23	< 0.05	37