

INFORMATION LEAFLET

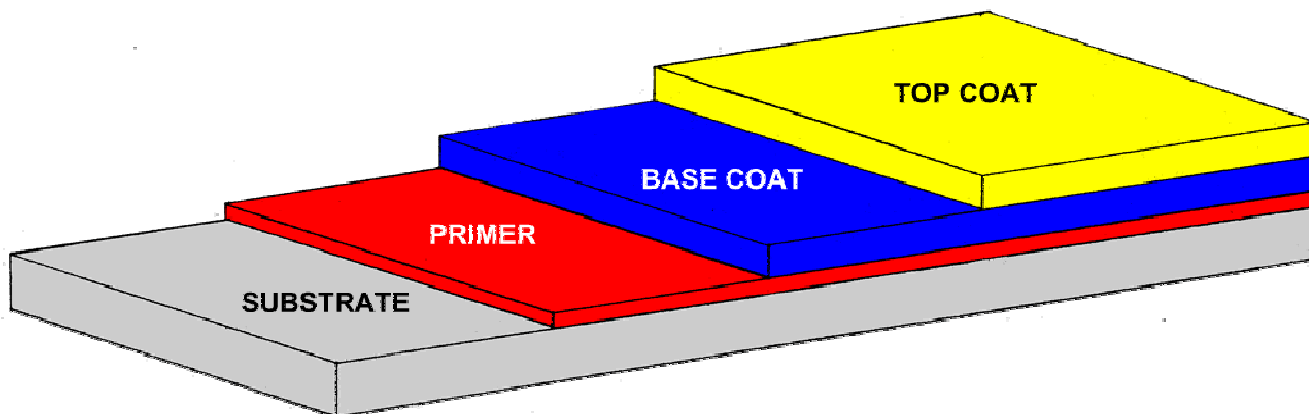


TRAPYLEN® for coating of plastic parts

Most sufficient products for coating of plastic parts in general are TRAPYLEN® 112 X, 130 X, 135 X, 137 X, 138 S, 139 S, 911 S, 6600 W, 6700 W, 6800 W, 9200 W and 9600 W including their various modifications concerning solids content.

Application of TRAPYLEN® as primer

In this application TRAPYLEN® is applied just as a resin solution without modification with other binder resins. TRAPYLEN® can be applied by dip- coating, spraying gun or by the tampon printing method.



Recommended solids content for application:

- resin solution 5 %
- waterbased dispersion 10 %

Recommended coating weight, calculated on solids:

3...5 g/m². An increased coating weight can cause cohesive failures of the primer layer due to low molecular weight of TRAPYLEN®.

Drying:

Drying condition of 30 s at 80...100 °C are sufficient for film forming of TRAPYLEN® before application of the base coat or top coat.

A drying temperature above the softening point of TRAPYLEN® is recommended in order to achieve the best results in terms of adhesion strength. Typical drying condition for coating automotive bumpers is 30 mins at 80 °C.

TRAPYLEN® can also be used as a pigmented primer.

Preliminary trials can be performed with a resin solution according to following formulation:

1.	Pigment- dispersing (Concentrate 1)		
	TRAPYLEN®	(15 % in xylene)	66,9 %
	Titanium dioxide	(Tioxide R-FC5)	32,8 %
	Carbon black	(Flammruß 101, Degussa)	0,3 %
2.	Final product		
	Concentrate 1		39,4 %
	TRAPYLEN®	(15 % in xylene)	60,6 %

The final product has a solids content of 26 % and a pigment / binder resin- ratio of 1:1. It can be adjusted to desired viscosity for application with suitable solvents like toluene or xylene.

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Application of TRAPYLEN® as adhesion promoter

For application with high film thickness TRAPYLEN® must be modified with other binder resins in order to improve

- cohesion and
- compatibility with pigments

Suitable binder resins for solvent based products are

- hydroxyl modified acrylic resins
- butyl- methacrylic resins
- with limitation: polyurethanes

Binder resins need to be soluble in aromatic hydrocarbons, otherwise they are not compatible with TRAPYLEN®. Epoxy resins and polyols are suitable reactive, low- molecular weight binders.

Preliminary trials can be carried out according to following formulation:

Acrylic resin*	(25 % in xylene)	40,0 %	*: <i>Degalan LP 66/02, Degussa</i>
TRAPYLEN®	(15 % in xylene)	33,3 %	
Carbon black	(<i>Flammruß 101, Degussa</i>)	0,1 %	
Rutil pigment	(<i>Tioxide R-FC5</i>)	10,0 %	
Talc	(<i>Talcum Prever, Luzenac</i>)	12,0 %	
Xylene		4,6 %	

We recommend dispersing the pigments into the acrylic resin solution. After suitable homogenisation TRAPYLEN® can be incorporated.

Our information leaflet "Compatibility with other binder resins" can be used as a guideline to start trials.

Waterbased TRAPYLEN® products

The grades TRAPYLEN® 6600 W, 6700 W, 6800 W, 9200 W and 9600 W do not contain surfactants to modify the levelling or wetting properties and are considered as raw materials for own products.

For primers we recommend not to adjust the solids content below 10 % in order to achieve sufficient wetting properties with low amounts of surfactants.

Excessive amounts of surfactants cause adhesion problems between the primer layer and the coating layer.

Trials for application as a primer can be performed according to following formulation, based on a TRAPYLEN® - dispersion with 30 % solids:

TRAPYLEN®- W	33,3 %
Water	57,6 %
EDG (Ethylenediglycol)	9,0 %
Silwet L 77 (OS)	0,1 %

In general the waterbased TRAPYLEN®- products are compatible with non-ionic stabilized and alkali tolerant polymer dispersions.

Recommendations concerning suitable products are given in the TRAPYLEN®- W information leaflet "Compatibility with polymer dispersions".