

DESCRIPTION

This system describes how a damaged polyester mould may be repaired and coated with a two component polyurethane system.

PRINCIPAL CHARACTERISTICS

This coating system protects a polyester mould used for the production of polyester or epoxy parts. Use this system to repair moulds damaged or worn by frequent use. This system is scratch resistant, resistant to styrene and a wide range of chemicals and provides excellent colour and gloss retention.

SURFACE CONDITION

Polyester gelcoat, free from all mould release agents, loose parts and other irregularities.

SURFACE PREPARATION

1. Clean the surface thoroughly and carefully with a suitable mould cleaner to remove all deposits of mould release agents. Degrease the surface thoroughly with Double Coat Ontvetter;
2. Sweep blast the surface with a suitable abrasive or grit paper the surface thoroughly with grit paper P120;
3. Remove all dust and residue from the surface;
4. Degrease the surface again with Double Coat Ontvetter;
5. Let the surface dry for at least 2 hours.

MATERIALS AND SPREADING RATES

The following materials are used in this paint system:

Poltix Vezelplamuur	spreading rate depends on condition surface
Poltix Smitplamuur	spreading rate approx. 0,5 l/m ²
Poltix Super plamuur	spreading rate depends on condition surface
IJmopox HB coating	spreading rate approx.. 0,2 l/m ²
IJmopox Verdunner	spreading rate depends on condition surface
Double Coat	spreading rate approx. 0,3 kg/m ²
Double Coat Smitverdunner	spreading rate depends on application method
Double Coat Ontvetter	spreading rate depends on condition surface

APPLICATION

System 1, Epoxy system

1. When joints between separate parts should be repaired and filled, use Poltix Super Plamuur;
2. When necessary, repair damages and cracks (see additional information);
3. Apply one to two coats of coats of IJmopox HB coating to a total dry filmthickness of 150 µm (minimum spreading rate approx. 0,2 l/m²);
4. Sand the surface the next day with grit paper P180 and sand again with grit paper P280;
5. Apply three coats of Double Coat to a total dry film thickness of 120 µm (minimum spreading rate approx. 0,3 kg/m²). Sand between each coat with a finer grade of grit paper, sand the second coat with grit paper P400;
6. It is possible to force cure Double Coat at a temperature of 30 to 40 °C 30 minutes after application.

System 2, Polyester system

1. When joints between separate parts should be repaired and filled, use Poltix Super Plamuur;
2. When necessary, repair damages and cracks (see additional information);
3. Apply one coat of Poltix Sprayfiller to a total dry filmthickness of 350 µm (minimum spreading rate approx. 0,5 m²);
4. Sand the surface the next day with grit paper P180 and sand again with grit paper P280;
5. Apply three coats of Double Coat to a total dry film thickness of 120 µm (minimum spreading rate approx. 0,3 kg/m²). Sand between each coat with a finer grade of grit paper, sand the second coat with grit paper P400;

6. It is possible to force cure Double Coat at a temperature of 30 to 40 °C 30 minutes after application.

Maintenance

Repair damaged areas using one of the above recommendations.

ADDITIONAL INFORMATION

- Surface preparation
When the surface of the gelcoat shows heavy cracking or crackle, remove the gelcoat completely by means of gritblasting with a suitable abrasive or by sanding.
- Repair joints
 1. Fill joints with Poltix Super Plamuur. Use for wide and deep joints first Poltix Vezelplamuur.
 2. Sand surface with grit paper P120 and remove all dust;
 3. Fill joints with Poltix Super Plamuur. Use for wide and deep joints first Poltix Vezelplamuur;
 4. Sand surface filled joints with grit paper P180, remove all dust and rinse surface with Double Coat Ontvetter;
 5. Apply one stripe coat Double Coat.
- Repair damages
 1. Repair damaged areas with Poltix Super Plamuur. Use first Poltix Vezelplamuur for repairs of deep and wide damages. Assure that every damage, including small damages, are filled;
 2. Open scratches and fill these with filler;
 3. Sand cracks up to the glass fibre laminate and apply filler;
 4. Sand surface filled joints with grit paper P180, remove all dust and rinse surface with Double Coat Ontvetter.
 5. Apply one stripe coat Double Coat.
- Residue of mould release agent
Any residual mould release agent will reduce the adhesion of IJmopox HB coating or Poltix Smitplamuur. This will result in loss of adhesion of the paintsystem when the mould is put to use. Careful attention should be given to the complete removal of any mould release agents.
- Using the mould
Leave the mould for at least 5 days after application of the final coat of Double Coat. When it is necessary to use the mould 24 hours, replace the final coat of Double Coat by Double Coat Modellak. Before using the mould, apply various layers of a suitable mould release agent. Apply the mould release agent according to the instructions of the supplier.
- Sanding
A durable adhesion will be obtained by thorough preparation of the surface. This may be achieved by sanding the surface. Sanding is also necessary when the time elapsed between application of each coat exceeds the maximum overcoating interval.
During application of the finishing coats, we recommend to use for each coat a finer grit paper.
- Durability and surface preparation
The durability of any paint system depends on a number of variables, amongst others: total dry film thickness, method of application, skill of labour, the conditions during which the coating is applied and cured, the exposure conditions during service and the preparation of the surface. Insufficient surface preparation might lead to blistering and loss of adhesion.

POLYESTER – MOULD RENOVATION

- Example application schedule, epoxy system

step		dry film thickness (µm)	spreading rate (m ² /l)	recoating interval at 20 °C	preparation before next step
1	Pre-treatment				
2	Repair with Poltix Super plamuur	n.a.	n.a.	8 hours	Sanding P180.
3	Apply first coat of IJmopox HB coating grey or white	75	10,0	8 hours	When recoating within 72 hours no preparation is required, otherwise sanding with P180.
4	Apply second coat of IJmopox HB coating white or grey	75	10,0	8 hours	Sanding P18-P240-P280.
5	Apply first coat of Double Coat	30	10,8	24 hours	When recoated within 48 hours no preparation is required, otherwise sanding with P320-P400. Use between each layer finer grit paper to avoid scratches in finish.
6	Apply second coat of Double Coat	30	10,8	24 hours	
7	Apply third coat of Double Coat	30	10,8	24 hours	Wait at least 5 days before first use of the mould. Apply multiple coats of a suitable mould release agent.

- Example application schedule, polyester system

step		dry film thickness (µm)	spreading rate (m ² /l)	recoating interval at 20 °C	preparation before next step
1	Pre-treatment				
2	Repair with Poltix Super plamuur	n.a.	n.a.	8 hours	Sanding P180.
3	Apply Poltix S spuitplamuur	350	2,0	8 hours	When recoating within 72 hours no preparation is required, otherwise sanding with P180.
4	Apply first coat of Double Coat	30	10,8	24 hours	When recoated within 48 hours no preparation is required, otherwise sanding with P320-P400. Use between each layer finer grit paper to avoid scratches in finish.
5	Apply second coat of Double Coat	30	10,8	24 hours	
6	Apply third coat of Double Coat	30	10,8	24 hours	Wait at least 5 days before first use of the mould. Apply multiple coats of a suitable mould release agent.

- Relation dry/wet film thickness

Volume % IJmopox thinner	0	3	6	9	12
Wet film thickness IJmopox HB coating at 75 µm dry film thickness	107	110	113	117	120
Volume % Double Coat spuitverdunner	0	2	4	6	8
Wet film thickness Double Coat at 30 µm dry film thickness	58	59	60	62	63

For detailed information on the products mentioned in this sheet, please refer to our technical information sheets.

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Disclaimer

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