
Rustbuster Epoxy Mastic EM121

1. Abrasion (Taber)

Method: ASTM D 4060 Abrasion Resistance of organic coatings by the Taber Abraser.
Results: No more than 102 milligrams average loss after 1000 cycles with CS-17 wheels and 1000 grams load.

2. Adhesion

Method: ASTM D4541 Pull-Off Strength of coatings Using portable Adhesion Testers.
Results: No less than 6.3 N/mm² (average of three readings)

3. Chemical resistance (Splash and Spillage - ASTM 1308)

Chemical	Result	Remark	Report
Acetic Acid (10%)	+	(slight soft.)	(LSR618)
Butanol	+		(LSR618)
Ethoxy propanol	+		(LSR618)
HCL (10%)	+	(slight disc.)	(LSR618)
MIBK	+		(LSR618)
NaClO (4%)	+		(LSR618)
NaOH (10%)	+		(LSR618)
Xylene	+		(LSR618)

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Chemical	Day 1	Day 2	Day 7
Acetic acid 3%	ok	ok	ok
Acetic Acid 20%	ok	ok	soft
Acetic Acid 100%(glacial)	coating damage		
Acetone	ok	soft	soft
Ammonium Hydroxyde 28%	ok	ok	soft
Brake Fluid	ok	soft	soft
Caproic Acid 100%	coating damaged		

Chemical	Day 1	Day 2	Day 7
Catsup	ok	ok	ok
Coffee	ok	ok	ok
Cresol	coating damaged		
Detergent solution	ok	ok	ok
Distilled Water	ok	ok	ok
Ethyl Alcohol 50%	ok	ok	ok
Ethyl Alcohol 100%	ok	soft	soft
Ethyl Diamine	ok	damaged	
Ferric Chloride 40%	ok	ok	stain
Hydrochloric Acid 20%	ok	ok	stain
Hydrochloric Acid 37%	ok	ok	stain
Lard	ok	ok	ok
Methylene Chloride	ok	ok	ok
n-Methyl pyrrolidone	ok	soft	soft
Mustard	ok	ok	stain
Palm Oil	ok	ok	ok
Phenol 6% in H2O	ok	soft	soft
Phenol 100%	coating damage		
Phosphoric Acid 85%	ok	blister	damaged
Skydrol 500B4	ok	soft	soft
Soap Sol. Conc. Hand soap	ok	ok	ok
Sodium Hydroxide 5%	ok	ok	ok
Sodium Hydroxide 10%	ok	ok	ok
Sodium Hydroxide 50%	ok	ok	ok
Sodium hypochlorite 5%	ok	ok	ok
Sulphuric Acid 5%	ok	ok	stain
Sulphuric Acid 50%	ok	ok	stain
Sulphuric Acid 98%	coating damage		
Toluene	ok	soft	soft
Transmission Fluid	ok	ok	ok
Triton X-100 5% in water	ok	ok	ok

4. Curing:

For immersion: 7 days at 20°C (= full curing time)

5. Electric resistance:

10^7 ohm (estimation TX WVL 85.12.05)

6. Flash Point

Closed cup Resin 43°C
 Cure 36°C

7. Glass transition temperature

(Tg) 55°C

8. Heat resistance

Depending on service conditions and on surface preparation.

General recomm.: 120°C

Peak Temperature: 150°C

Discoloration: 200°C - exposure 30 minutes (P 674)

Blistering temp.: 350°C - exposure 30 min. (P 674)

9. Humidity

Method: ASTM D 2247 Testing Water Resistance of coatings at 100% Relative Humidity

Results: No Blistering, cracking, or delamination. No rusting after 750 hours exposure.

10. Immersion

Cold water Immersion only

(accelarated version not recommended for immersion)

11. Impact resistance

Method: ASTM D 2794 Resistance of Organic Coatings to the effects of rapid deformation (Impact)

Results: Direct 24 inch.lbs
Reverse 6 inch.lbs

12. Moisture Vapor Transmission

ASTM D 1653 17.1 grams per sq meter per 24 hours.
ASTM F 1249 4.49 grams per sq meter.

13. Pencil Hardness

Method: ASTM D 3363 Film Hardness by Pencil Test.
Results: Rating not less than HB.

22. Registration numbers:

Denmark
Cure PR 687819
Resin PR 687800

23. Relative densities (mix 1:1V%)

White: 1.45

24. Salt spray (ASTM B117)(BS 3900 Part 4)

3000 hrs.: face blistering: none (US datasheet)
1500 hrs : no face, no scribe corrosion, no blistering.
(scribe corrosion starts after this period)

25. Scratch resistance

BS 3900 Part E2 no failure at 2.5 kg load.

26. Slow deformation

BS 3900 part E4 3mm

27. Specific permeability

(= water vapour transmission)
White: 0.131 mg mm/cm² 24 hours

28. Substrates

Substrate	Performance
Aluminium	Nearly all test patches show good adhesion. A test patch is however always recommended.
Hot spray Aluminium	Use Am 71 TC (alum) first.
Dimetcote	Only when completely aged on fresh Dimetcote too much solvent blistering which can not be solved by mist/full coat technique.
Steel	(For immersion SA 3) product particularly intended for compromised surface preparation.
Zinc galvanizing	Only when completely aged or prepared

29. Systems

Contact Rustbuster technical for your specific system compatibility

