

Chemtec Chemicals B.V.
Breevaartstraat 71
3044 AG Rotterdam

Haarlem, January 27th 2016
Reference: LAB16-0088-BRF

Dear Sir / Madam,

Mr. R. van Bergen from Alkmaar, requested COT B.V. at Haarlem to carry out a comparative study into the functioning of Universol and Universol Eco. The assignment was given by Mr. Van Bergen by e-mail d.d. December 6, 2015.

Project data : 20160006
COT Project number : Mr. van Bergen from Alkmaar
Client : Universol, concentrate, Universol Eco concentrate and the
Samples : Sikkens Paints Rubool BL Sature Satin and Rubbol SB High gloss

Receive samples : January 5, 2016
Monster numbers : 05.01.16 / 0002 to 0005
Research period : 7 - 27 January 2016
Note date : January 27, 2016

Test design

The study was carried out in accordance with the COT offer of December 3, 2015 and the further precision on December 15, 2015. It is about comparing the adhesion of a coat of paint on an aged paint layer that has been cleaned with Universol or Universol Eco.

Performance

Meranti panels of 100 x 300 mm with 1 layer of alkyd resin primer.
After 3 days of drying at 23 oC and 50% relative humidity the panels lightly sanded and painted with Sikkens Rubool Saturra (105 g / m²) or Rubbol SB High Gloss (80 g / m²)
After aging the paint systems (5 days at 40 oC) grease and oil applied and samples further outdated.

Samples cleaned with Universol or Universol Eco (diluted 1 to 20), rinsed with water and dried.

A second layer of top coat (same as already present) was applied to the panels.

Samples were dried for 1 day at 23 oC and then for 1 day at 40 oC.

Adherence determined according to ISO 2409 (cross-cut method) with and without tape load, execution in 3-fold. Scores 0 = no detachment up to 5 = maximum detachment.

Results adhesion measurements

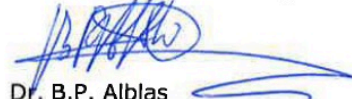
Cleaner	Topcoat	Adhesion (ISO 2409)	
		without tape	with tape
Universol	Rubbol BL Satura	0 0 0	0 0 0
Universol Eco	Rubbol BL Satura	0 0 0	0 0 0
Universol	Rubbol SB*	0 0 0	0 0 2
Universol Eco	Rubbol SB*	0 0 0	0 0 0

* Rubbol SB had not yet fully cured

Conclusion

There are no differences between Universol and Universol Eco in terms of the adhesion of the 2 topcoats examined on cleaned / degreased aged paint layers.

CENTRUM VOOR ONDERZOEK
EN TECHNISCH ADVIES (COT bv)



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