

Finishing sheeted surfaces using Eze-Kote

In case you don't know, Eze-Kote (EK) is a water-based resin made by de Luxe Materials, <https://deluxematerials.co.uk/>. Unlike epoxy or polyester, it is single part so does not need to be mixed before use. A 500 ml bottle costs about £15 but it goes a long way and there is little wastage because of not needing to mix batches. The maker suggests that 75 ml covers about 1 m² so the whole bottle covers just over six square metres.

I use it for balsa sheeted models. After applying the sheet and sanding it smooth, a couple of coats of EK harden the sheet, which helps to stop workshop rash. I coat and sand till happy with the smoothness, then apply 24g glass fibre cloth again using EK, and further coats until the surface is sufficiently smooth to be painted.

One benefit of EK is its lightness, especially when compared with epoxy, though it probably isn't as strong. I have experimented before, which was reported in the November 2016 newsletter. However I felt further experiment was needed. One thing I didn't know was how much the weight of the EK dropped as it dried. I did some preliminary measurements that suggested the dry weight of a coat was about one third of the wet. I found that surprising, so decided to do a proper test.

I cut a 10 x 10 cm piece of balsa and sanded both sides to the usual level of smoothness. I applied three coats as evenly as I could. I weighed the piece when the coat was wet. I allowed each coat to dry then weighed again. I then sanded smooth and weighed again. I completed the tests on side 1 before doing side 2. Coats were left to dry 30 to 40 minutes in a warm room.

Averages of two sides

	g/dm ²	g/m ²
First wet coat	0.98	97.5
Second wet coat	0.47	47
Third wet coat	0.36	36
First drop %	49	
Second drop %	68	
Third drop %	64	
First dry coat	0.50	50
Second dry coat	0.17	17
Third dry coat	0.13	13
Total of three	0.8	80

Conclusions

EK loses half its weight as the first coat dries.

EK loses two-thirds of its weight on subsequent coats.

The first coat on bare wood takes about double the amount of EK than later ones.

The drop in weight on sanding is very small.



It is best to use the thin wide brushes made for varnishing. These have very fine points on the bristles so brush marks are much reduced. Avoid going back over the coat, as after a minute or two this will show brush marks anyway. Brushes are washed in water. I found it fine to leave the brush in water between coats. All that is needed is to wipe the brush dryish on a cloth or paper towel before using it again. I bought a set of three (25, 37 and 50 mm) on Ebay for £3.85.

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