



Replication Technologies Limited  
Unit 38, Hillgrove Business Park  
Nazeing Road, Nazeing  
Waltham Abbey  
Essex  
EN9 2HB  
Tel: 01992 892 894  
Fax: 01992 892 901  
Email: [enquiries@reptech.co.uk](mailto:enquiries@reptech.co.uk)  
Website: [www.reptech.co.uk](http://www.reptech.co.uk)

## **REPSIL E15, E20, E25, E30**

**REPSIL E** range of silicones is a group of quality silicone moulding compounds developed to give the maximum ECONOMY in terms of price while maintaining and providing high quality reproduction, long mould life, very low shrinkage and no risk of the casting material gripping the mould surface.

**REPSIL E's** have been formulated for easy mixing by hand, with colour coded components giving a visual aid to ensure mixing is adequate. The two components mix easily and because of the low viscosity most grades can be used without processing in a vacuum chamber. REPSIL E's are supplied in four different hardness grades - see table of physical properties on reverse.

### **HOW TO USE**

**PREPARATION:** The surface of the original should be clean and free of any dust or loose material. If necessary, particularly with porous surfaces, a suitable release agent such as PETROGEL or a spray wax should be used.

**MIXING:** **REPSIL E's** are supplied in 5Kg kits and 20Kg Bases with 4kg - E15 Curing Agent (Mix Ratio 100:20 by weight), 2Kg -E20 and E25 Curing Agents (Mix Ratio 100:10 by weight) and 1Kg - E30 Curing Agent (Mix Ratio 100:5 by weight).

Pour the orange Curing Agent on to the white base in its own container and gently mix and fold the two components together avoiding as much air entrapment as possible. As the mixed material becomes more intermixed you can employ more vigour until a uniform "Salmon Pink" colour is obtained. Pay particular attention to the sides and base of container. When you are sure that the mix is uniformly blended, pour the contents into another clean container and re-mix. This is the only way to ensure that the material is thoroughly mixed.

**POURING:** The **REPSIL E's** can now be gently poured at lowest point into the mould box in ensuring that any of the air bubbles burst over the squashed rim until the level of the liquid in the box has risen sufficiently over the master models highest point. During this process it is advisable to pour the mixed material in a long streaky stream which also helps in bursting air bubbles introduced during mixing.

**CARE OF MOULDS:** When casting polyester resin into **REPSIL E** moulds, styrene attack can be minimised, by leaving the moulds open for as long as possible between casts to allow free styrene to evaporate. To achieve maximum mould life with polyester resin it is advisable to first allow the moulds to fully cure after pouring for approximately 5-7daysbefore casting into them. The moulds can however be used immediately after de-moulding for plaster casting.

De-mould time will vary depending upon the grade of **REPSIL E** used

## Cured Properties of Repsil E's

	E15	E20	E25	E30
Colour	Salmon Pink	Salmon Pink	Salmon Pink	Salmon Pink
Mix Ratio	100:25	100:10	100:10	100:5
Working Time-Mins	70-90	40-60	90-120	90-120
De-Mould Time-Hrs	14-16	12-14	22-24	22-24
Mixed Viscosity mPas	10000	18000	18000	21000
Hardness Shore A	15	20	25	30
Tensile Strength Mpa	2.9	3.0	2.5	4.5
Elongation @ Break %	600	520	450	400
Tear Strength kN/m	20	23	23	25
S.G	1.16	1.18	1.18	1.19
Linear Shrinkage %	0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4

Resistance to casting materials: The chemical resistance of fully cured **REPSIL E** range of silicones is excellent, and similar to all condensation cure silicone elastomers. It should be noted however that ultimately, resin and other aggressive casting materials will attack silicone moulds, changing physical properties, surface release and possibly mould dimensions. Mould should be checked periodically during long production runs.

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