



User Guide: Mixing and Dispensing

Twinpack Mixing

Twinpacks are pre-weighed resin and hardener contained in a tough flexible film, separated by a removable clip and rail. Once the clip and rail is removed the resin and hardener can be thoroughly mixed within the bag and is then ready for use. Mixing will normally take ~ 3 minutes depending on the operator and viscosity of the material. Twinpacks are ideal for small to medium production runs, prototyping and on-site or field use.

Weighing

For best results the resin and hardener must be mixed to an accuracy of +/- 2%. Use the mix ratio stated on the technical data. Do not deviate from the stated ratio as this may have an adverse effect on the properties and cure time.

Mixing Bulk or Kits

Using suitable protective clothing, pour the resin into a mixing vessel and add the correct quantity of hardener. Small quantities may be mixed by hand, i.e. a stick or spatula, and larger quantities should be mixed with a mechanical device e.g., a paint stirrer.

Some systems contain inert filler that may settle during storage. This is called sedimentation. If sediment is found it is essential the sediment is re-dispersed in the original container before being used. Failure to do so may result in defective product. Long-term sedimentation will be aggravated by storage above 25°C and should be avoided. Light sediment may be re-dispersed by gently mixing with a paddle or spatula. In bulk or kit form evacuation may be necessary after mixing for best results.

Mixing of Three Part systems

Pour the pre-weighed hardener component into the resin vessel and drain thoroughly. Mix the resin and hardener components thoroughly by hand using a broad bladed implement or preferably mechanically with a paint stirrer on slow speed. (Approximately 1-2 minutes).

Add approximately half the contents the extender / filler and stir. When the mix becomes even, add the remaining filler / extender and continue mixing for a further 1 – 2 minutes.

Stir well until the material becomes homogenous, paying particular attention to the sides and bottom of the container, as this is particularly important. (Low viscosity mixes will take less time and more viscous products may require more time. If in doubt continue mixing).

Mixing time will also depend upon the temperature of the system and size of the kit. 3-5 minutes would be an average; however operator experience can reduce the time. The rule, however, "if in doubt - mix again" as insufficient mixing will result in soft spots of uncured material that may lead to product failure.

For best results, mix and pour the material before the usable life of the system.

Dispose of the empty kit containers in accordance with local authority requirements. Any excess material that has been properly mixed and cured can be classed as inert and safe.

Cartridge Mixing

It is essential for best results that the cartridge is 'balanced' before use to ensure correct mixing. This is achieved by loading the cartridge into the gun *before* addition of the mixer element and pumping the gun to push a small amount of the contents forward. Wipe the excess from the cartridge tip and add the mixer. The cartridge is now ready for use.

Spillage & Cleaning

All equipment contaminated with mixed material should be cleaned before the material has hardened. Robnor Resins TS130 is suitable non-flammable cleaning agent, although other solvents may be found suitable. TS130 will also remove cured material provided it is allowed to soak for a number of hours.

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Enquiries/Technical support: onlinesupport@resins-online.com Sales: onlinesales@resins-online.com