

for Chocking Between Steel & Steel

Technical Bulletin # 693B

Bulletin Description

The purpose of the hardener in every epoxy compound or coating is to cause a reaction to that will result in the hardening of the epoxy resin. This reaction usually creates heat within the epoxy that forces the molecules to cross-link and bond tightly together. Depending on the type and quantity of resin, additives and hardener used, the final epoxy product will have certain physical properties such as compressive strength, flexibility, hardness, shear strength, shock resistance, etc.

The overwhelming majority of epoxy compounds have a fixed ratio of resin to hardener that results in a product with predictable physical properties. However, rather than specify an exact amount of hardener to use with CHOCKFAST Orange, ITW Polymer Technologies asks the end user to determine the correct amount for a particular installation that will cause the compound to achieve maximum physical properties strength. The amount of hardener is determined based on the temperature of the steel of the surrounding chock and the thickness of the chock.

By varying the amount of hardener used, the reaction that takes place between the resin and the hardener can be managed. The goal is to achieve a relatively high exothermic heat within the CHOCKFAST without causing it to either boil or crack. It is this high heat that gives CHOCKFAST Orange its exceptional strength characteristics.

Using CHOCKFAST Orange between two pieces of steel is different that using it between steel and concrete or steel and epoxy. Steel has a much greater ability to absorb heat from the CHOCKFAST during the curing process. For this reason, slightly more hardener is used when pouring CHOCKFAST between two pieces of steel.

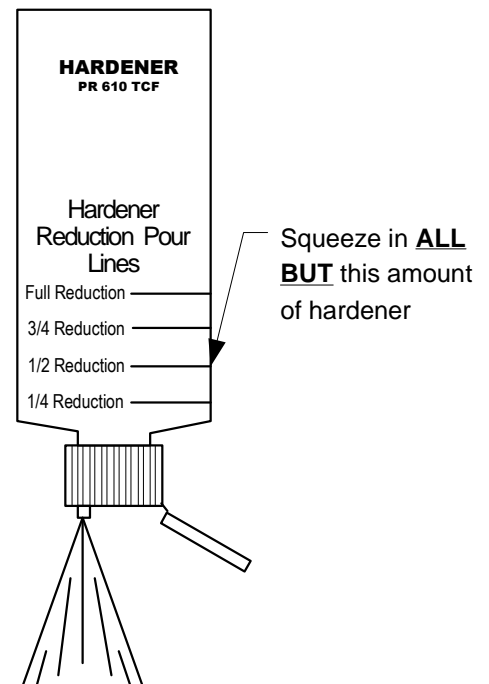
Application Instructions

Note that before mixing the resin and hardener that the resin temperature should be in the range 20° to 25°C (68°-77°F).

The maximum amount of hardener possible should normally be used. The graph on the following page is for guidance and the optimum amount will usually be slightly more than it shows.

After puncturing the metal foil seal, the hardener bottle is inverted and squeezed to discharge the hardener into the resin container. The hardener reduction lines are to be read with the bottle inverted as shown.

Dispose of excess hardener in an approved manner and do not collect the remainder of several bottles in one bottle as it may be mistaken for a complete hardener unit. It is usually best to mix left over hardener in the empty cans of CHOCKFAST. The hardener will combine with the left over resin and become inert.

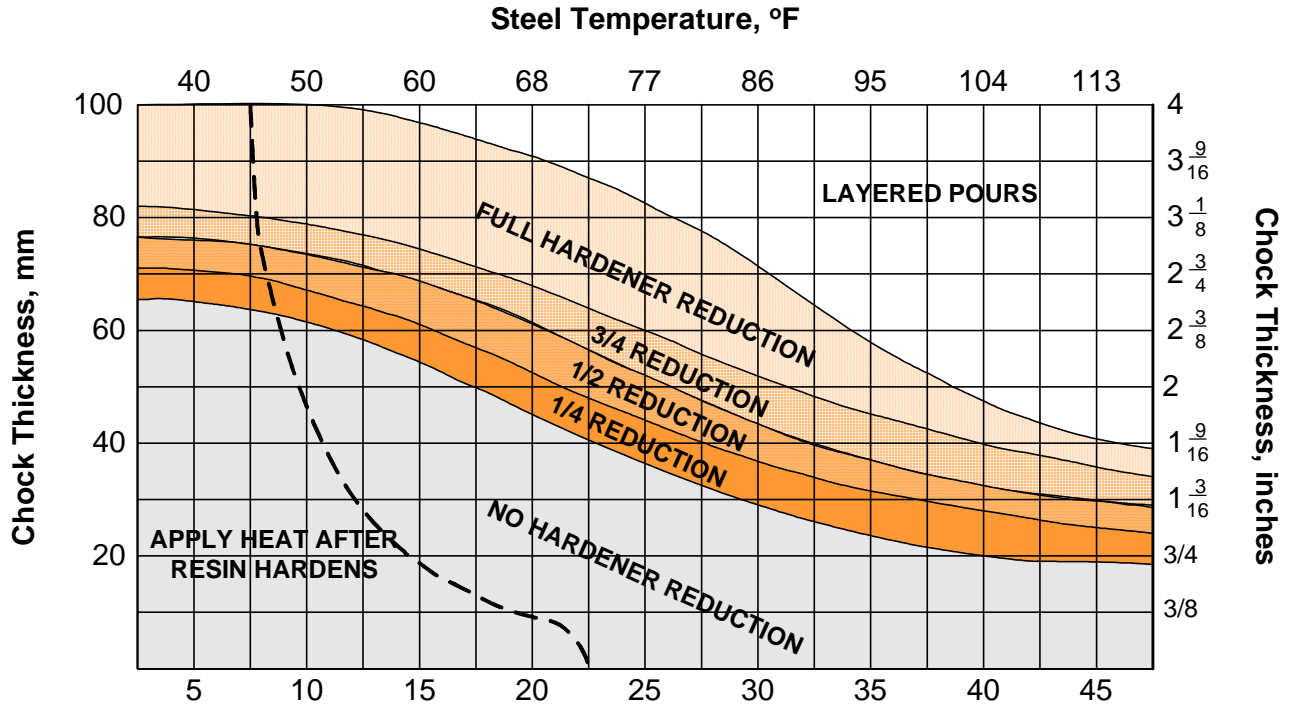


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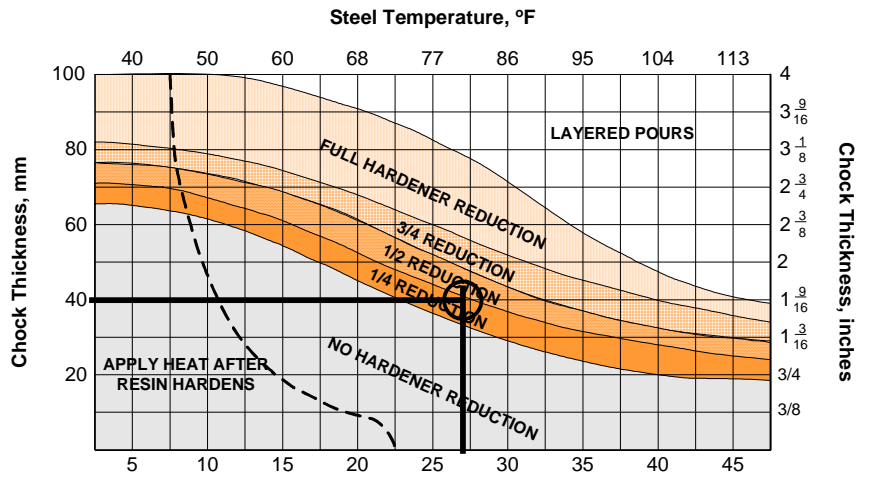
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Steel Temperature, °C



Example:
40 mm (1-9/16") chocks
& a steel temperature of
27° C (80° F) requires a
1/4 Hardener Reduction

Steel Temperature, °C

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