

**TECHNIQUE OF MIXING SHORT STUFF® POLYETHYLENE ESS5F  
IN DERA KANE\* VINYL ESTER RESIN**

**Mixing of SHORT STUFF® Polyethylene (thixotrope) Concentrate (2% solution)**

1. Weigh the desired amount of SHORT STUFF® Polyethylene ESS5F<sup>1</sup>.
2. Place the SHORT STUFF® in a clean, dry container large enough to hold the concentrate.
3. Weigh the appropriate amount of DERA KANE and divide the resin into five equal parts.
4. Add one portion of the DERA KANE to the SHORT STUFF® Polyethylene ESS5F. Stir with a putty or dough mixer until the resin is absorbed by the SHORT STUFF®. If a putty or dough mixer is not available, the mixture may be stirred by using a spatula or flat paint stirrer.
5. Continue mixing the first portion of resin and the SHORT STUFF® Polyethylene ESS5F until the mixture is smooth and free of lumps. Then add the second portion of the resin and continue mixing until the mixture is smooth and free of lumps. Repeat this process until all of the resin is mixed into the SHORT STUFF®.
6. Do not add styrene or any other viscosity reducer to the concentrate.
7. Cover the concentrate mixture to prevent loss of volatiles.
8. If the concentrate is not used immediately after mixing, it must be stirred before use.

**Adding Thixotrope Concentrate to DERA KANE Vinyl Ester Resin**

1. Mix the promoter and accelerator into the DERA KANE resin using a Cowles high-shear dissolver.
2. After the promoter and accelerator are completely dispersed, position the turning Cowles blade in the resin so that a large whirling funnel of resin is formed in the center of the mixing container.
3. With the Cowles dissolver stirring at high speed, add the appropriate amount of thixotrope concentrate into the whirling funnel of resin. The appropriate amount of SHORT STUFF® Polyethylene ESS5F is 0.6 phr (parts per hundred resin).

**TABLE I**

0.6 phr SHORT STUFF® Polyethylene ESS5F	
Amount of DERA KANE Pounds	Amount of 2% Thixotrope Concentrate Pounds
10	4.28
100	42.85
200	85.70
300	128.55
400	171.40
500	214.25

4. Mix with a high-shear Cowles dissolver for at least ten minutes. The Cowles dissolver should be operating at as high a speed as possible. Resin temperature must not exceed 100°F during the mixing process.
5. Do not add any styrene or viscosity reducer to the mixture.

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<sup>1</sup> SHORT STUFF® Polyethylene ESS5F available only from MiniFIBERS, Inc., Johnson City, TN, 423/282-4242