



# STARFLEX Jelly Glue Dilution

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## I. INTRODUCTION

The two most important factors for successful results when using STARFLEX Jelly Glue are temperature and dilution. The following information deals with the latter.

## II. "PROPER" DILUTION

We always remind our customers to be sure they are diluting STARFLEX Jelly Glue properly. Just what is "proper" dilution? We define proper dilution as the amount of water which must be added to STARFLEX Jelly Glue to result in the best adhesive performance. That may mean "no dilution". Some STARFLEX Jelly Glues are "ready to use" after melting.

Other STARFLEX Jelly Glues may require dilution with clean, hot water. The adhesive must be thoroughly mixed and uniform before it is used. Proper dilution means that the resultant adhesive viscosity (thickness) will allow the user and/or machine operator(s) to apply the adhesive and produce the best end product with maximum efficiency.

This means that each user must determine the solution thickness which gives them the best results. How is this done? Trial and error. We have seen two similar machines, side by side, producing the same product, using the same STARFLEX formula, in which one operator will have a thick adhesive and the other a thin one. Both operators produce satisfactory results and are pleased with their effort.

Conclusion: there is no one, specific viscosity for any STARFLEX Jelly Glue which must be absolutely maintained, in order to achieve satisfactory results. Our suggestion is that each user determines their level of solution thickness which is going to work, rather than try to impose rigid dictates with respect to adhesive viscosity.

### **III. SUGGESTIONS FOR MAINTAINING PROPER VISCOSITY:**

1. Keep pots covered to minimize water loss.
2. Shut off heat when adhesive will not be used for long periods.
3. Add water as needed to maintain optimum operating viscosity.
4. Even jelly glue which is initially used without dilution should have water added occasionally to maintain viscosity.
5. Consider and utilize, if appropriate, systems which maintain viscosity automatically.

**ABOVE ALL, MAINTAIN PROPER TEMPERATURE: 140° - 150°F (60° - 66°C)**

### **IV. WHAT HAPPENS WHEN THE ADHESIVE IS IMPROPERLY DILUTED?**

The most common result of over dilution is that the adhesive loses its tack and the bond to be produced does not develop quickly enough.

Other common problems with over dilution are:

1. The adhesive film penetrates too far into the substance to be bonded and results in poor adhesion.
2. Warping (where materials are laminated).
3. Failure of the surfaces to bond at all.

### **V. WHAT ABOUT UNDER DILUTION?**

The most common result of under dilution is that the adhesive becomes too thick causing machine glue build up (stringing, cottoning, smearing and other problems) or if the glue is being applied by hand, it becomes very difficult to apply.

Other common problems with under dilution are:

1. The adhesive film does not penetrate far enough into the substance to be bonded and this results in poor adhesion.
2. There is excessive squeeze out from the bond which causes residual stickiness and potentially objects which have been glued stick together.
3. Failure of the surfaces to bond at all because the thick glue is already set before the surfaces come in contact with each other.