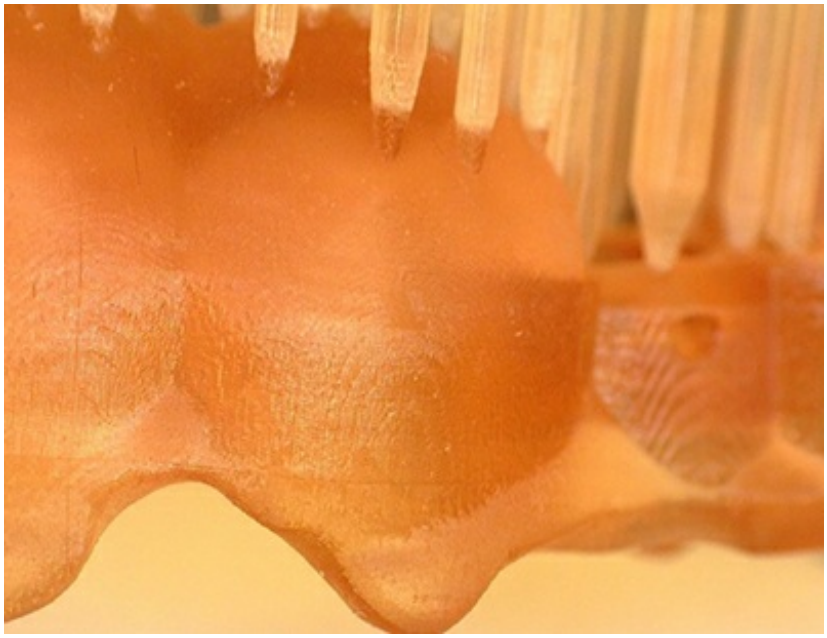
Print Failures

1	Supporting architecture not generating properly during part building	This can be caused by: 1. Not enough material in the print tray. To prevent this, be sure to fill material back up to the minimum level specified in this guide before building. 2. Cold material. Be sure the room where you store material and the room you print at is kept within the temperature limits expressed in this manual. If you have taken both of these steps and still have issues printing supports, please contact your authorized print-material provider.

2	Delamination between layers - this is separation of printed layers, which do not cure together properly 	This can be caused by: 1. Not enough material in the print tray. To prevent this, be sure to fill material back up to the minimum level specified in this guide before building. 2. Spilled print material gets in between the projector's radiation path and the print surface. In this case, remove the print tray and glass print base, and clean both components. Inspect the lower print chamber to see if material has spilled inside. If so, the printer must be returned to 3D Systems for cleaning. CAUTION: Do not attempt to clean anything in the lower print chamber. Doing so risks further damage to the printer. Only certified service personnel may clean the components of the lower print chamber. 3. Dust on projector lens - remove the print tray and glass print base. Use a nonabrasive, lint-free paper towel or microfiber cloth to wipe the projector lens.  4. The part orientation on the print platform can contribute to delamination. Parts with large, flat surfaces should be placed at an angle when setting up the build file in 3D Sprint. This reduces the surface area of the part being cured on a given layer, decreasing likelihood of delamination. 5. Print-tray film scratched, dented, hazy/dirty- particularly in the failed area of the build. If scratched or dented, it is best to replace the tray. If hazy/dirty, clean the tray as in the section . 6. Glass print base might be dirty or damaged. Clean plate as in the section . If damaged the plate needs to be replaced.

3	Shifting - layers on the printed part have shifted in the X or Y direction	This can be caused by: **Hardware** Run elevator diagnostics. Observe the elevator motion throughout the whole process. If it moves in an irregular motion, contact your authorized print-material provider. The printer will need to be sent in for repairs. **Part Orientation** Large, flat parts can cause a shift when built parallel to the print platform. Orienting the parts at a 5° or 10° angle will typically be enough to eliminate the shift. Thicker parts may need a larger angle.

4	Voids in printed part - holes or empty spaces where there shouldn't be	This can be caused by:
		
		1. Not enough material in the print tray. To prevent this, be sure to fill material back up to the minimum level specified in this guide before building.
		2. Spilled print material gets in between the projector's radiation path and the print surface. In this case, remove the print tray and glass print base, and clean both components. Inspect the printer to see if material has spilled inside the lower print chamber. If so, the printer must be returned to 3D Systems for cleaning.
		
		  CAUTION: Do not attempt to clean anything in the lower printer chamber. Doing so risks further damage to the printer. Only certified service personnel may clean the components of the lower print chamber.
		
		3. Dust on projector lens - remove the print tray and glass print base. Use a nonabrasive, lint-free paper towel or microfiber cloth to wipe the projector lens.
		4. Cured material was left on the film from a previous build - Use Resin Mixer to feel along the print-tray film. Any place that causes the mixer to stop or jump indicates cured material. If this is the case:
		    1. You must empty the print tray of all liquid material. You may do this in one of two ways:
		        1. Discard the material according to all local, state, and federal regulations.
		        2. Pour the material into another compatible print tray, as seen in the section Print-Tray Material

		Cross Usage. 2. Pour recommended solvent into the print tray. 3. Allow the partially cured part to soak in the solvent long enough for it to swell in size. 4. Use the Resin Mixer to **gently** scrape the part off the film. ⚠ CAUTION: Putting too much pressure on the print-tray film can puncture the film. The film cannot be replaced by itself; if the film is damaged, the whole print tray must be replaced.
5	Poor surface quality on side walls - specs dotting part surface 	This is a sign of debris in the print tray. Ensure that the print tray is clean of debris in between builds. The side walls should look like the image below: 
6	Part not accurate in the X/Y direction	Run the Accuracy Wizard in 3D Sprint, as seen in the section Accuracy Wizard.

7	Part not accurate in the Z direction	In 3D Sprint, change the **Scaling Factor Z** field under **Build Styles**. For assistance in testing the Z scale of your parts, contact 3D Systems Customer Service.