

## **ADDING INCLUSIONS TO LIGHTWEIGHT JOINT COMPOUND & SPACKLING**

See the photos of test samples that follow. This experiment was tested for how lightweight spackling and lightweight all purpose joint compound differ when the same inclusions were added to each. The purpose being to see if it was possible to safely replace acrylic paste for either the spackling or compound, especially when inclusions were added for texture and special effects. This would also save greatly on cost when producing larger textured or bas relief works. Acrylic paste cost four to five times that of spackling and joint compound, depending on where it is purchased and the brand.

Each sample was cured to the touch within 72 hours. The spackling was somewhat flexible and soft, similar to acrylic paste, but not as durable when pinched. The spackling and joint compound when mixed together was not as delicate as with the spackling alone. However, the joint compound was more rigid and less flexible, thus being harder to the touch than the spackling or the mixture samples.

All samples were examined again after 4.5 months of having more time to cure. All three samples appeared even more durable. I then applied a coat of polymer medium by Golden over each sample and allowed them to cure for 72 hours. The polymer medium strengthened all the samples to a greater degree and allowed for more flexibility, especially with mixture B (joint compound and spackling mixture). The final results determined that A, B, and C, regardless of the inclusion added, can be used in place of an acrylic paste as long as the support, including a canvas, has been properly prepared. Applications should be approximately 1/8" thick for surface texture, and never more than 1/4" thick for bas relief structures.

The colors and textures of the inclusions appeared to be more visible in sample A (spackling) than in sample B (mix) or sample C (compound). However, the inclusions in B are more noticeable than in C. This is due to the spackling being a bright white and somewhat translucent, whereas the joint compound is an off-

white opaque material. Therefore, you will also notice the same with sample 6A that the color's are more visible than in 6B, and 6B being more visible than 6C.

The following ten samples consist of ten rows with four columns each. The inclusions are listed in row D and were added to A, B, and C within that same row. For example, in the third row where D consist of embossing powder which were mixed in the same portions of 1/8 tsp for each A, B, and C.

You can adjust the amounts for your own test. It is very important to keep in mind that by adding too much of an inclusion, it will only weaken the sample once dried, and thus causing it to crack, chip, or crumble easily.

**A** Lightweight spackling by Red Devil (1 tablespoon)

**B** Lightweight spackling & lightweight joint compound 50/50 mix (1/2 tablespoon each & thoroughly mixed before inclusions were added)

**C** Lightweight all purpose joint compound by Sheetrock (1 tablespoon)

**D** All inclusions in column D were measured at approximately 1/8 teaspoon and added to each sample in its row A, B, and C.

\* The inclusions are listed by name and brand following the test samples.

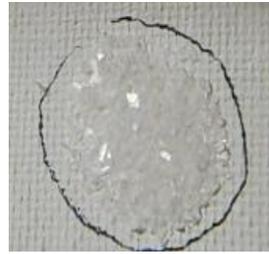
**A - Spackling**

**B- 50/50Mix(A & C)**

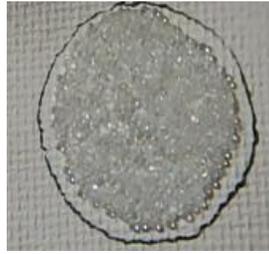
**C - Compound**

**D - Inclusion**

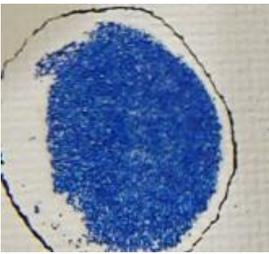
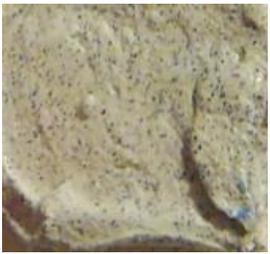
**#1**



**#2**



**#3**



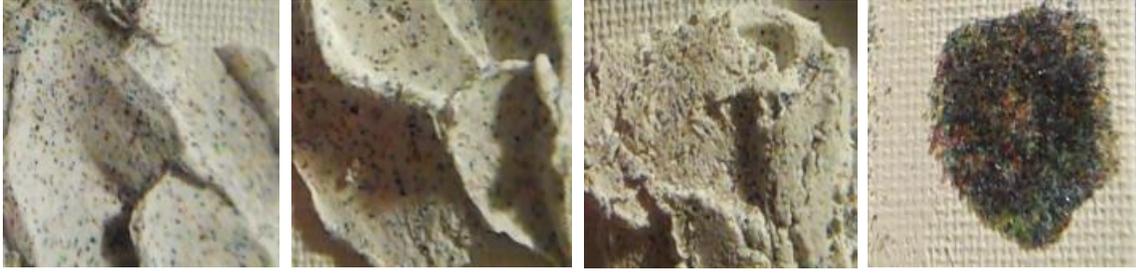
**#4**



**#5**



#6



#7



#8



#9



#10



## **List of inclusions from column D**

# 1 Diamond dust

# 2 Clear glass seed beads

# 3 Cobalt blue embossing powder

# 4 Red glitter embossing powder

# 5 Fine pearl glitter

# 6 Polymer clay powder (acquired from sanding cured polymer clay)

# 7 Coarse sand

# 8 White seashell pieces

# 9 Pearl color seashell pieces

# 10 Clear glass

Here are two additional methods to help strengthen joint compound or spackling used for a mixed media or bas relief painting.

**The following materials were tested with acrylic mediums:** See recipes that follow for increased durability.

**A** Lightweight Spackling by Masilla Liviana

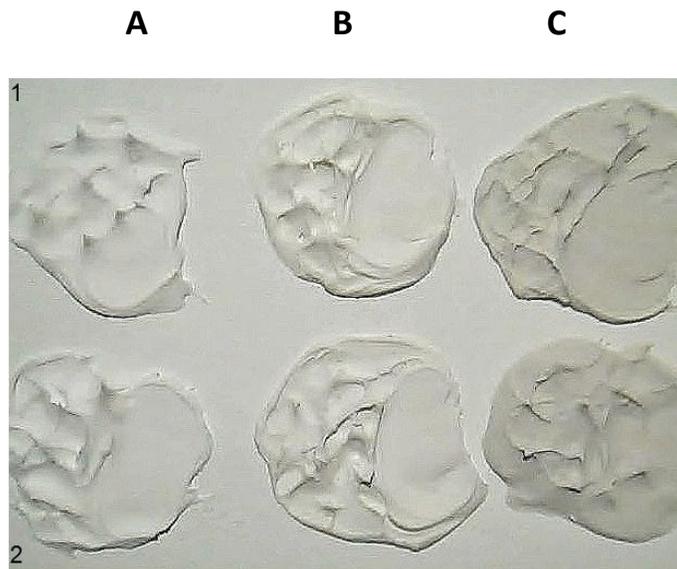
**B** Vinyl Spackling by Ace

**C** Lightweight All Purpose Joint Compound by Sheetrock

**Note:** It is not advisable to use the regular joint compound. It is much heavier than the lightweight joint compound used here. It is too brittle and will crack or chip away from surface handling for techniques and painting when applied 1/8" thick.

The first row was mixed with Polymer Medium by Golden.

The second row was mixed with acrylic Gloss Gel by Liquitex. Any brand of gel medium can be used.



## Recipes for Increase Durability of Spackling & Joint Compound Materials

Methods to strengthen spackling and lightweight joint compound for mixed media and bas relief paintings. Do not use acrylic glazing medium. It is too thin and will do very little to increase durability.

**1.** Mix in 1/4 Polymer Medium by Golden Paints. Use either gloss or matte. Mix thoroughly with a palette knife. You can slightly adjust the amount of polymer medium added to achieve a desired consistency. There is less chance of hairline cracks using this recipe when applied no more than approximately 1/8" thick. Thicker applications showed larger cracks.

**2.** Add 1/4 acrylic gel to the spackling or joint compound and mix thoroughly. The student grade gel "Basics" by Liquitex worked just as well for this recipe.

This method has a lesser chance of hairline cracks with a thick application. You may notice a few very fine hairline cracks with this method if applied too thick.

**NOTE:** Even the lightweight joint compound tends to crack if applied too thick. The accidental cracks offer an organic feel, even though this may not be a desired result in some cases. To avoid cracks, it is best to apply joint compound no more than 1/8" thick and allow it to dry without disturbing the surface. It is not advised that joint compound be used to sculpt unless a solid material such as pulp is added to one of the above recipes. Add enough pulp to the recipe to get the consistency of mashed potatoes. Mix well or use a blender. You can then apply a thicker layer to a surface form, mesh, or aluminum foil armature. It can be sanded smooth once it has dried completely.

Joint compound can also be thinned with water to the consistency of a heavy clay slip to fill in unwanted surface cracks or gaps for bas relief work.

**UPDATES: Elastomeric:** This material is an acrylic base compound.

11/29/12 - "Elastomeric Custom Patch Smooth" was also tested and was found to be much softer and flexible once cured, so there was no need to add acrylic polymer medium or gel medium to it. This product is not meant to be sanded and therefore can be a setback when controlled detail is desired as in bas relief work or sculpting. It is a wonderful medium to create surface texture and impasto with painting knife.

12/04/2013 - Larger amounts of color medium can be added to Elastomeric, especially acrylic paint while not weakening the compound once cured. When low saturated or inexpensive color mediums were added to Elastomeric, the results were much paler than when added to the spackling and joint compound samples. Professional high saturated acrylic color can be added to the Elastomeric even in larger amounts for more intense color without weakening it as was the case with the joint compound or spackling samples. This is because Elastomeric is an acrylic base material with a fair amount of polymer emulsion.

Thin the Elastomeric with a liquid acrylic medium or professional soft body color when necessary for application purposes. Golden liquid paint, Golden fluid paint, various airbrush paints, and Liquitex soft body paint maintain intense color, even though lighter than paint straight from the tube. Use heavy body paint if you want to tint the Elastomeric without thinning it.