Reproducing Trunk Underlayment

Approx Time Needed For Completion: Approx 4 hrs or more depending on allot of things

Supplies/Equipment Needed:

- 2 full sheets of bulk underlayment material from Snakeoyl
- Enough craft paper to cover the complete surface of your trunk three times
- One quart of engine oil - any weight or brand
- Heat gun
- Sheers or knives capable of cutting the bulk underlayment and paper
- One can of spray adhesive
- Clean rags, small sections of carpet, old oven mitts or other products capable of insulating hands during the bonding process. See text

As restorers we often run into the fact that not every item we need for our car is either available or if available, not always correct.

The Challenge: If your restoring a 69-70 Mach I , Shelby or Grande, currently there is no reproduction made of the full trunk underlayment that was originally installed between your gas tank and trunk mat. This full size underlayment was part of the "extra" insulation package that came with your car.

Because the original underlayment was heavy, cracked and broke apart typically most of our cars have had it removed by prior owners. So most no longer have any in their car and in turn, no clue that it was ever present

So that is the challenge for this How-to - make a section of correct looking underlayment that covers the same surfaces as the original did. In this case for a 69 Shelby/ Mach I.

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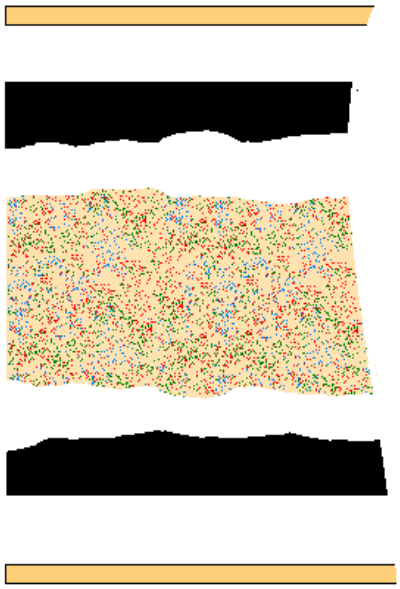
Foreword

First, I think it would be helpful to describe what the end produce should look like so you can understand why all the following steps are necessary. The finished underlayment is a sandwich of different surfaces, arranged as follows



NOTE: Some examples (69 Dearborn) in original cars have been found with one of the paper layers not installed. In these cases a very thin clear plastic layer was found in its place. Fortunately, if your reproducing one of these, the Snakeoyl product comes with this installed (you will see in one of the following steps it being removed) so you may choose to leave it in place if doing one of those cars.

Since this is all about sharing and learning let me share with you a few things we learned and did, at the beginning, rather than at the end. Believe it will be less confusing this way.

1 - We found that we did not have enough material to do two full sides (top and bottom) from the underlayment material we purchased. To address that we simply pieced the bottom side together out of two smaller pieces we had left after we cut one side of the base. This appears not to have been an issue as we melted the edges together, the craft paper covered the joint and it was placed on the bottom side of the finished produce.

2 - Originally we thought we would glue the craft paper to the surface of the tar layer but on second look we choose to melt the surface and attach the paper to the material directly. We were concerned that using the glue would effect the ability of the paper to later absorbed the oil we applied. Believe we made the best choice.

3 - The finished product is very similar to the original and because of this, it reproduces all the negative characteristic of the original material. The finished produce is thick, when bent the outer paper does tear (on the outside of a sharp bend) and buckles slightly in the inside of a bend. Installing it on a hot day after it has been heated from the sun seems to make the job easier

4 - Initially, we had some areas (especially edges) where the paper would release from the tar layer. This was possibly due to not enough heat be applied during assembly. To address this, we simply reheated and weighed that area down till the tar cooled. Since this project was completed in the cooler part of our year its thought that it could have been a contributing factor.

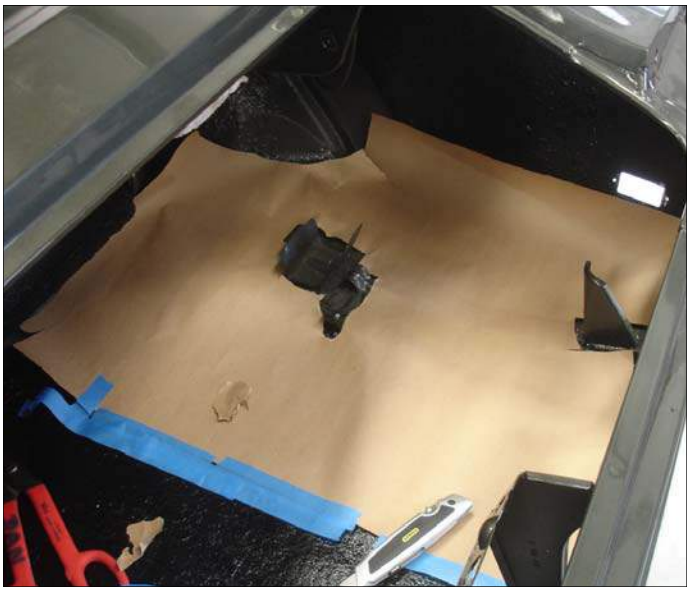
5 - Lastly we choose to cut the two layers of underlayment that would make up the base separately, then, once they were bonded together, apply the craft paper. This meant that we cut the pattern/outline, four separate times. This choice did make the produce easier to cut, but because of this, there is a chance to produce a more irregular edge on the finished product. Consider the benefits of each method and make your choice.

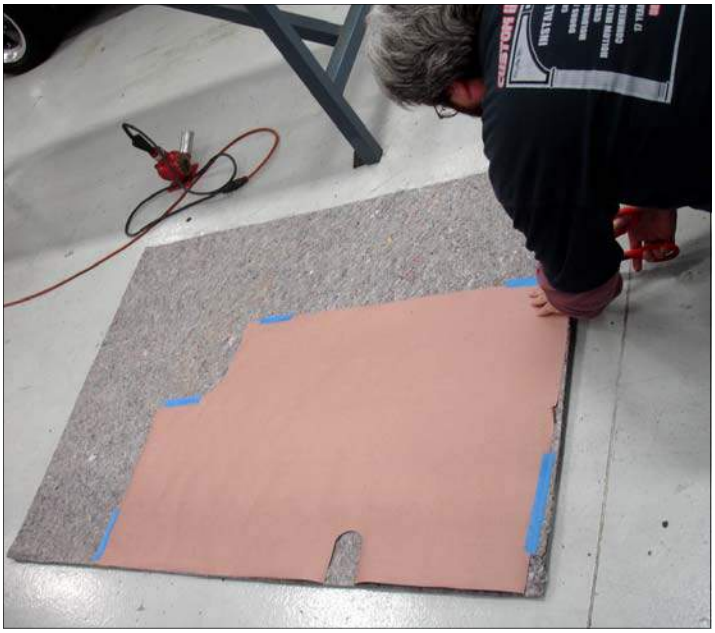
Step #1

First step is to establish a pattern for the finished product. As you arrange the paper in the trunk consider that it will have to conform to the bends produced by the trunk floors and gas tank. It may take you a few attempts before you get a pattern that your happy with.

Of course its fine to add extra sections (just tape them on to the main pattern) to get all the details.

We placed a section of underlayment on the top of the gas tank to give us a better feel of where the top layer would be for the paper since the finished produce is quite thick.





Step #2

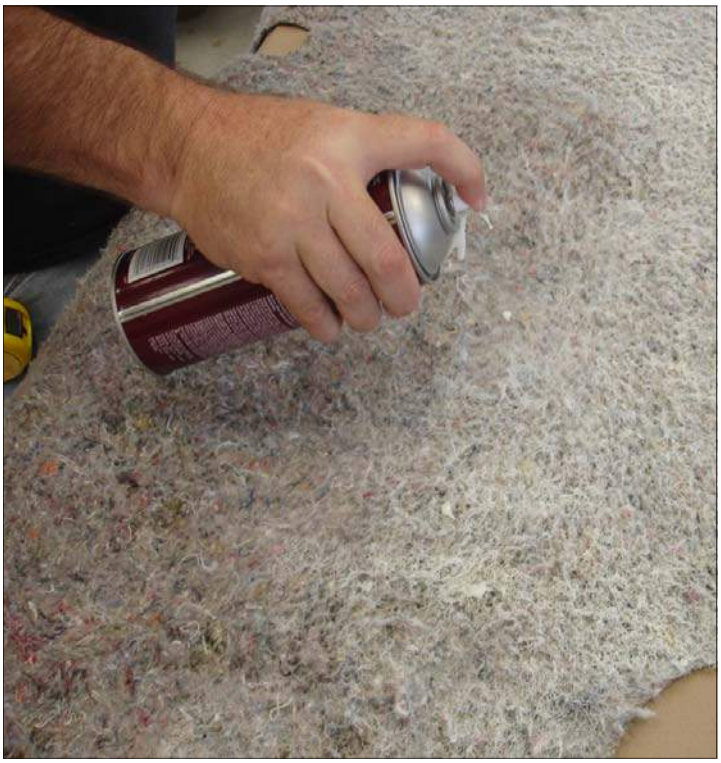
Next the pattern was used to cut out one layer of the underlayment. As mentioned, that can be done after both layers are blued together or after the construction paper is attached to the tar and jute layers.

We tried both ways, cutting around the pattern and transferring the shape to the tar side of the layer.

Step #3

Next step would be to glue both jute surfaces to one another, but we determined that the finished product would be thicker than the original so instead the next step was to strip one of the layers of jute away by simply pealing one away from the tar.

Step #4



Once the one side was removed we simply sprayed both surfaces with contact glue at attached both together producing the main body of our new trunk underlayment.

Step #5

To prepare the base for the heating of the tar and applying the construction paper we first had to remove the very thin clear plastic layer attached to the tar surface. This was done by simply peeling it off of the tar layer before you prepared to heat and apply that side of the underlayment. DO NOT do both sides at this time as it can cause the bottom layer to bond to the surface of the working surface.

Step #6

At this point we are ready to attach the craft paper to the base. WARNING - heat guns produce allot of heat and you must be careful of where you direct the heat, where you set the heat gun between applications and your personal safety as well as those around you.

On a large flat working surface we preheated a section working from one edge, after assuring correct alignment of the paper. We did this across the full width of the base, (across the shortest distance) worked best for us.

I suggest that you practice first on some of the remnants of the tar & jute/base to figure out, for yourself, how hot you will need to get the product for the bonding to take place.

Once the approx 10-12" of tar is heated the paper is applied to it, rubbing it into the surface. For this task you will need to protect yourself from the very hot surface of the paper so old clean rags, pieces of carpet , old oven mitts or other items to insulate your hands are necessary.

After that section is bonded, continue to heat the next section, working your way from one side to the other. Once the first side is completed, let it cool then move to the other side.

Step #7

Once the paper has been bonded to the tar layer double check and smooth the surface, reheating any spot that has not bonded fully

Step #8

The paper outer surfaces are trimmed at the edges all openings. In this example we had the cut out for the space saver inflator bottle.

Step #9

Lastly the surface is coated with fresh motor oil allowing it to soak into the paper. Any residue is removed later

Conclusion

At this point we are all done and its time to install. As mentioned the complete sheet could be preheated in the sun to allow it to flex more during installation.

Because of the size and the weight you will need a couple sets of hands to get it into place. We found that you have to adjust how it sits in the trunk to get the best fit as it is thick and heavy. Make sure that you press the material down, working from the gas tank outward, into the pockets and valleys round the tank before you work it onto the trunk floors to either side.

To the left you will see a sample of original underlayment (bottom sample) and one from our reproduction attempt. With a little age and a little more discoloration it should look even closer to the old original look.

Additional Information

While we are discussing the trunk area I should take this opportunity to share some pictures of the masonite board that was originally placed between the gas tank and the underlayment layer.

It appears that the board served a couple of purposes. First to protect the top of the tank from the spare tire and secondly to reduce any noise or vibration from the spare tire to gas tank.

Originally, contact cement or dark gray seam sealer was applied between the board and the top of the tank to keep it in place, It appears that the cement may have been applied from a chalking gun sort of tool..