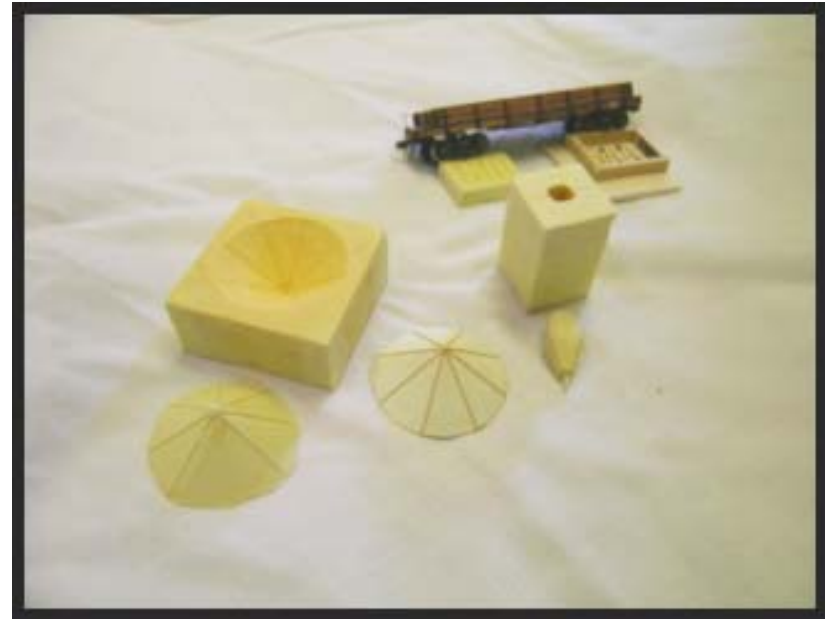


Intermediate Resin Casting

Building EBT Combine # 14, Using
~~Two part molds~~ Squish molds, and
how to recover from Mistakes
by John Griffith

Last Time - Quick Review

- Last time
 - we talked about simple molds and castings
 - What was needed to produce them
 - How to make them
 - Safety
 - Where to get the materials and additional sources of information.
 - Your hand out covers most of that



If you missed the last clinic its on the web at http://home.comcast.net/~Potomac_NMRA

This time - the Adventure continues

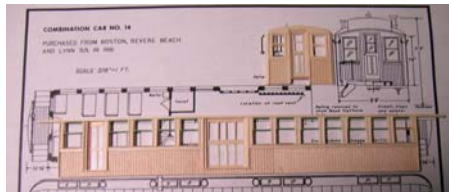
Simple molds & castings taken to the extreme

- EBT's Combine # 14 from one piece molds
 - The Process
 - The Problems
 - The Resolution
 - The Techniques



The Process

- Pouring the molds



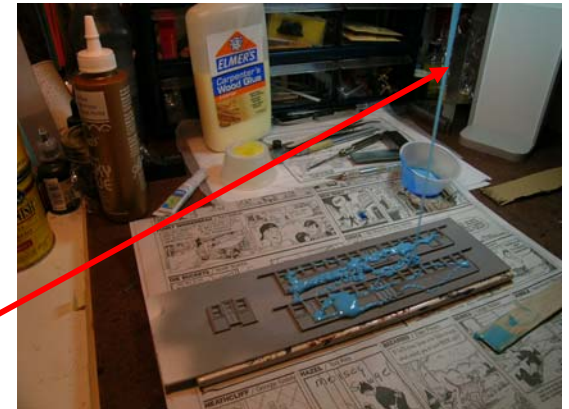
The Masters



Seal the Master



Measure and mix the RTV - New Method by volume vs by weight. Either way 1:10



Pour the RTV then use a brush or air



Build the Mold Box & Fill

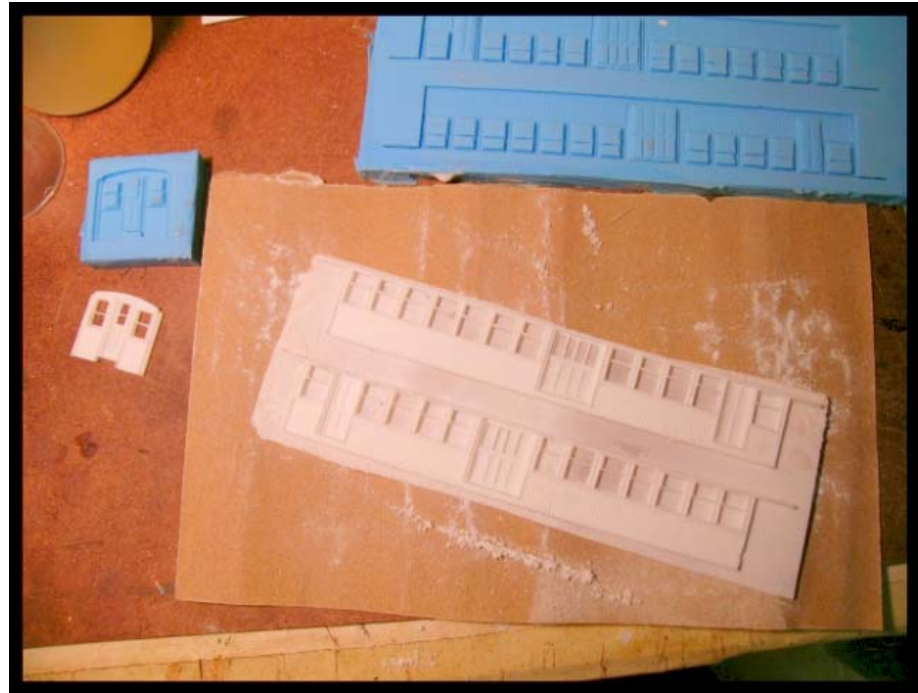


24 hours later De-mold Sometimes you sacrifice

Reminder to self - never use cardboard as a mold base!

The Process Continued

- Casting the Resin
 - Resin mix is 1:1 Part A to Part B.
 - Mix completely
 - Pour slowly
 - Make sure you get the bubbles out
 - Slide material for flat back.



Note to self - after six tries and you still get air bubbles call Joel Bragdon of Bragdon Enterprises for advice

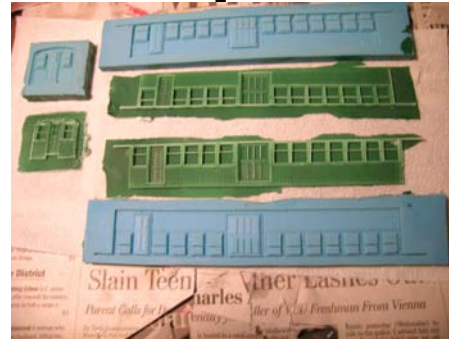
The Roof



Note to self - the swirl method
doesn't fill all the nooks and crannies

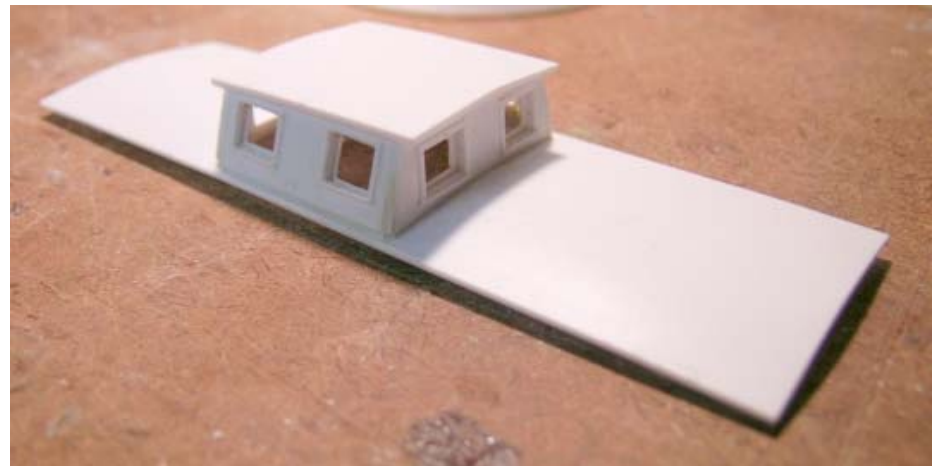
The Problems, The Resolution, & The Techniques

- Air bubbles in the castings
 - Cheap GLOSS spray paint, thin wire through all of the valleys, cool the resin for more working time, do one side at a time.
- See through Clerestory windows
 - See above plus Multiple pours
- The Result



~~Two Part Molds~~ Squish Molds

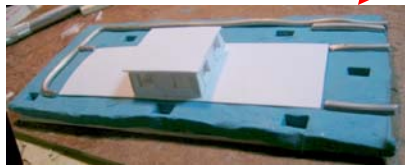
- Possible to do most everything with flat molds, but what if you want detail on both sides of the casting



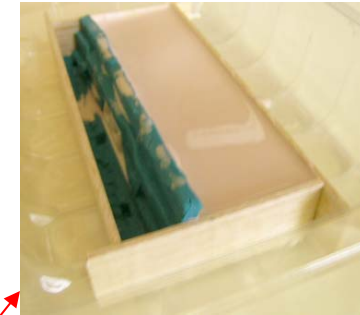
- The tale of the Caboose Roof

The Two Part Mold

Scotch tape to separate the molds



- Master prep
- The clay prep
- The channels
- The mold box
- The first pour
- The second pour
- The PROBLEM - Resin wouldn't flow through (Cross sections too thin)



Vaseline to keep the RTV from sticking to itself

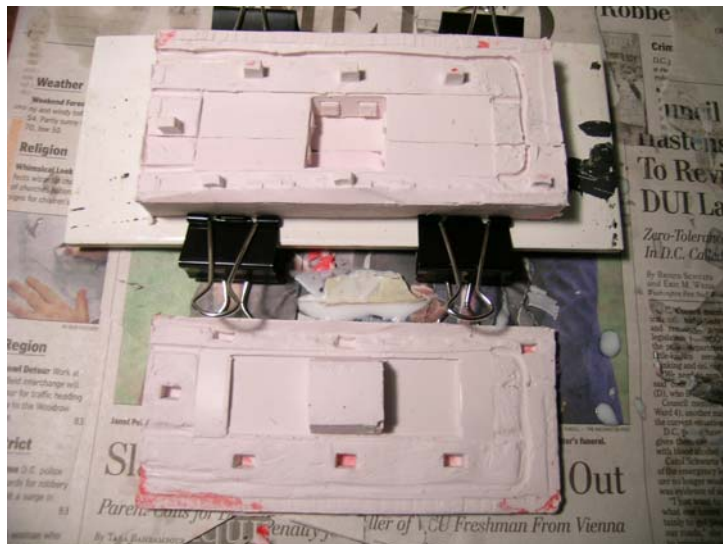


The finished Molds

Note to self - now what

The Squish Mold Solution

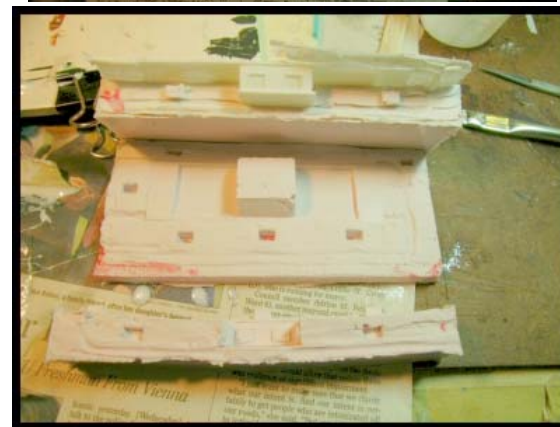
- Same mold different technique
- Rather than putting mold together then filling with resin - fill the bottom of the mold with resin and squish on the top



Note to self - Don't throw it away think your way through it



De-Molding



Just out of the mold



Cleaned up & Ready to paint

How to recover from Mistakes (or when good casting/molds go bad)

- Facts of life
 - RTV only sticks to itself - sometimes.
 - Uses for Vaseline to keep it from sticking to things you don't want it to.
 - Resin will stick to itself but not to RTV.
 - Use a mold release anyway - Cheap Gloss Spray Paint
 - You won't get a perfect mold/casting every time.
 - Learn to fix the problem
 - Castings
 - » Holes - fill with putty or fill with resin
 - » Corner didn't fill - build up with putty
 - » Make 10% more than you need
 - » If resin sets too fast put in frig for 20 Minutes before use
 - Molds
 - » Halves stuck together - cut them apart
 - » RTV under the master - trim it up before moving on
 - » Imperfections in the mold - fix on the casting before it hardens

Sources of Mold Rubber and Resin

- Bragdon Enterprises
- Alumilite - Many hobby shops
- Micro Mark in NJ
- Direct from, Freeman, Smooth-on, and Alumilite

Resources for help and more details

- Many how tos and tips are available at these sites
- Bragdon <http://www.bragdonent.com/>
- Freeman has a DVD that is excellent - available on ebay
- Alumilite <http://www.alumilite.com/> select How To
- Smooth-on <http://www.smoothon.com/> select How To
- Freeman's new hobby site <http://www.hobbycast.net/>