Styrene as a Modeling Material

Stan Seeds MMR
Scratch Building Scale Models

Using Styrene
Advantages of Styrene

- Dimensionally Stable
- Easy to Cut
- Can be Drilled, Sanded, Painted
- Welds easily (Methyl Ethyl Keotane) MEK
- Wide Variety of Sources
- Blends Well with other Materials
- Low Cost
Applications

- Buildings
- Streets
- Bridges
- Signals
- Fences
- Masters for Molds (to cast multiple parts)
A Building
A Bridge
A Signal Bridge
Victorville Bridge
Making Masters for Molds
Types of Construction

Structures
• Single Ply
• Laminated
• Spaced or Filled

Structural Steel
• Strip Stock
• Angle Iron Stock
• Make your own

Streets and Lots
• Sheet Masters
• Some from Styrene
• Some from castings
• Combinations

Use your imagination!
Single Ply
Laminated Construction
Spaced or Filled
To Start

• You will need Reference Materials
  Pictures
  Plans
  Make your own plans

• Consider Other Parts of Model
  Windows and Doors (Tichy, Grandt Line)
  Central Valley Beams, Steps and Ladders
  Plastruct or Evergreen roofing and wall material
  Home Made Castings
  Finish
Standard Tools

Cutting Tools
• #5 Exacto Knife
• Utility Knife
• Single Razor Blades
• Nail Clipper
• Pinking shears
• Emery Boards

Measuring Tools
• Scale Rule
• Steel Straight Edge
• Try Square
• Right Angle Blocks
Other Tools

- Work Board
- Chopper
- Stripper
- Pin Vise and Drills
- Pounce Wheel (rivets)
- Micrometer

- ACC
- MEK (with holder)
- Canopy Glue
- Acrylic Paint
Sources of Material

• Evergreen (Strip and sheets with various surfaces – clapboard, board and batten, concrete block, clear, etc.)
• Plastruct (same selection as Evergreen)
• Laird (sheet in 4ft. X 8ft.)
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Dimensions

• .010 thru .125 in sheet (.015, .020, .030, .040, .060, .080)
• .010 x .010 thru .125 x .125 in strips
• Shapes (I Beam – C Beam – Girders)

Note:
1 HO Ft. = .125
6 HO inches = .060
3 HO inches = .030
1 HO inch = .010
Tips and Techniques

Score and Break, don’t try to cut through

• First cut is a clean groove
• Follow up with repeated cuts using a heavier tool (utility knife)
• About 1 pass for each 10 thousands
• Snap apart – smooth edges
Tips and Techniques (cont’d)

• Use Overhead Slides for window walls
  Paint inside and outside of building
  Sandwich slide between laminations
  Prepaint major mullions
  glue to slide after walls are assembled

• Bevel corners 45 degrees
Tips and Techniques (cont’d)

• Use “clips” to assemble walls
• Make thick walls spaced and filled with plaster of paris
• Cut arches with a fostner bit (both sides at once
• Assemble window walls rather than trying to cut out windows
• Make diamond shingles – pinking shears
Window Wall Building
Tips and Techniques (cont’d)

• Form beams and structural shapes on edge of work board
• Silk screen makes great HO window screen
• Overhead slides for big windows
• Stucco can be simulated with fine sand and Dull Coat
• Keep everything square!!!
The World is yours from the ridiculous
To the sublime