

VINYL SIGNMAKING LESSON OUTLINE

3 types of Vinyl Film

- 1) **Cast** – Durable, conformable
 1. Conformable - mold over seams & rivets.
 2. Less shrinkage.
 3. No memory – conforms to shape.
 4. More Expensive but available in many colors.
 5. Endurance. Good for outdoors
 6. Made from pouring liquid on a smooth surface
- 2) **Calendared** – Indoor or short term outdoor.
 1. Formed with pressure rollers.
 2. Has memory and will shrink.
 3. Will shrink, crack and peel with heat and cold
 4. Cheaper, available in less colors
- 3) **Specialty**
 1. Reflective
 2. Prism
 3. May not be outdoor durable
 4. Hallographic – outdoor for 5 years
 5. SIGNGOLD- 22 karat real gold – works for 14 years. -EXPENSIVE

Substrates - Anything you stick letters to is a SUBSTRATE.

- glass, metal, PVC, board, canvas
- 1. prefab substrates - “blanks”
- 2. Sanblasted foam core – this can be oil painted.
- 3. corrugated plastic - “core-plastic”
- 4. Banners
 - most popular substrates.
 - 40% of revenue come from banners. suited for outdoor use.
- 5. portable stands.

Tools

CLEANING TOOLS

70% Isopropyl alcohol
Lint Free Cloths
Will cleaner leave residue? - make sure you have correct cleaner for substrate!!
Adhesive failure – letters fall off – doesn't build repeat customers.

PREMASK TOOLS

app tape
tape dispenser
squeegee
scissors
trim knife

POSITIONING TOOLS

center point ruler
cutting mats
Water soluble pencils

APPLICATION TOOLS

squeegee
squeegee sleeves
rubber brayer – doesn't replace squeegee
application fluid
heat gun – optional

PREPARING GRAPHIC – 3 STEPS

1. Prepare surface
2. Premask
3. Mark for positioning

WEEDING - Removing excess vinyl

PROBLEMS – due to cutter or blade setting error – not vinyl!

If problems weeding - check settings and adjustments

- set cutter speed slower
- make sure blade depth is correct for thickness of vinyl

Liftoff – tearing during weeding.

Where to go for help? Tutorial on sign warehouse website

Techniques for weeding:

- Weed letters from right to left.
- Work in sections. Use software to make border or use xacto to trim
- Remove by pulling at 45 angle. Pull up and away.
- Not all serif or novelty fonts are good for vinyl

PREPARATION of SUBSTRATES

Substrates – glass, banners, metal, auto

Surface conditions and cleanliness are important

Cleaners should not leave oil.

Isopropyl Alcohol is usually fine.

Vehicles may need cleaner that removes oil, dirt and residue

Sign blanks may only need Alcohol

Temp – optimum 60-80 f

If too hot, spray with app fluid or water.

If too hot, graphics will fall off. **THIS DOES NOT MAKE REPEAT BUSINESS!!**

Heat gun can be used to warm surface if too cold.

Stickiness of vinyl is called “tack”

PREMASK – applying application tape to graphic

Application tape – like masking tape. Stabilizes vinyl during removal of backing. Low tack, can be peeled off of substrates

To begin - need large flat surface, tape dispenser, large squeegee.

1. place graphic on table
2. pull app tape taught, hold above graphic

3. if not straight, snap loose and straighten
4. use wide squeegee to bond tape to vinyl.
5. work in strokes from center outward.
6. use 45 degree angle strokes with squeegee.

POSITIONING GRAPHICS - Premeasure and mark

Use **REGISTRATION MARKS** – marks to show center of substrate and graphic.

1. measure substrate from edge to edge.
2. Place substrate on work table
3. Use **stabilo pencil** – water soluble pencil that will not hurt substrate. Make center marks on substrate in area visible beyond graphic
4. Mark center of graphic on premask. - make sure to measure GRAPHIC, not PREMASK
5. Match cross hairs of substrates and graphic

HINGING

Center hinge – most commonly used method

1. position graphic on substrate
2. tack graphic with masking tape on corners
3. Put vertical tape down center to make “hinge”
4. Start with right side. (if right handed)
5. Lift end toward center and remove liner.
6. Cut backing at center
7. Starting from center, squeegee vinyl to substrates
8. Lift left side and cut
9. squeegee vinyl again
10. Make sure to hold squeegee at 45 degree angle
11. remove app tape – start at top corner. pull firmly toward self keeping tape at 180 degree (180 degree angle keeps from getting bubbles)

Horizontal Hinge – used for long graphics, large graphics that need to be applied in sections

1. tack corners with tape
2. masking tape lengthwise across top of graphic
3. remove tape from corners.
4. cut into sections
5. start at right, flip up section and remove liner
6. Squeegee each section with downward strokes. Resqueegee whole thing
7. remove ap tape at 180 degree angle.
8. re-squeegee with teflon sleeve to protect vinyl from marking or marring.

REPAIRS - check for flaws

bubbles – pierce hole at edge and work air out with squeegee, or bubble popper tool

tunnel – runs full length of graphic

Flute – tunnel with hole at one end.

to fix tunnels and flutes - slit vinyl and overlap ends. Re-squeegee entire area.

Make sure to use squeegee protector so vinyl is not marred or marked.