

Sealing / Varnish

Why apply a finishing coat?

- Protection against the elements
- Scratches
- Enhance final finish

What's your desired end result?

- Glossy, Matte, Satin, Metallic

Test sample! The test sample should be a scrap of the same material, with the same paint/finish as the rest of your armor.

What paint type did you use?

- Laquer: Alclad Lacquer Klear Kote, Testor sealer metalizer
- Enamel: Enamel Clear coat (spray can)
- Acrylic: Krylon Acrylic Spray Paint Crystal Clear or Liquitex Varnish
- Latex or Plasti-Dip: Plasti Dip Clear (matte) or Glossifier

Attachments

Common Materials

- Velcro (preferably not adhesive)
- Nylon Webbing
- Sewing Elastic
- D-Rings
- Side Release Buckles and Slides (parachute buckles)
- Snap and Hooks (for fabric to armor)
- Cords or Ribbons (not as strong, but can be useful for character-specific designs)

Use combinations to get the best attachments!

Elastic: you can glue directly to the armor (ensure sufficient contact area)

Nylon webbing + Side Release Buckles and Slides: can be sewn into a harness like a bra or a belt

Nylon webbing + D-ring + Velcro: before priming, attach the D-rings to the armor, then loop the webbing through and glue on Velcro

Snap: can be sewn or glued onto Nylon webbing, then glued to armor



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Armor Cheatsheet

By the Cosplay Repair Station

Patterning

Method 1: Plastic Wrap+Tape

1. Cover desired area with plastic wrap
2. Cover again with masking tape over the wrap
3. Draw outline of armor, then cut wrap off, paying attention to seam line placement
4. Trace out pattern onto paper

Method 2: Franken-pattern

1. Start with a basic shape for the piece, cut from paper
2. Note the measurements your piece needs to be
3. Cut and tape paper onto or off the pattern until it matches the measurements and looks how you want.
4. Trace this mess onto a new sheet

Types of Materials for Base or Details

Craft foam (thick), EVA foam, Styrofoam*, insulation foam (pink or purple), expanding foam, Wonderflex, Worbla

*Recommended as filler material only, will not hold for structural purposes

For details only: Craft foam (thin), Friendly plastic, Worbla, Thibra, resin clay, stretch vinyl/pleather, hot glue and puff paint

Armor Materials	Price	Where to Find	Difficulty Lvl
Paper Mache	Free to \$	Recycling bin**	Low
Cardboard	Free to \$	Recycling bin	Moderate
Craft foam	\$	Craft stores	Low
EVA foam	\$\$	Hardware stores, sport goods stores, online	Low
Sintra	\$\$	Sign shops, Online	Moderate
Wonderflex	\$\$\$	Online	Moderate
Worbla	\$\$\$\$	Online	Moderate

**Many craft stores sell paper mache paste

Supplies and Techniques

Supplies

Heat gun
X-acto knife
Sharp scissors
Contact cement, super glue
Hot glue
Dremel
Sandpaper
Cutting mat or surface
Ruler/Straight edge
Markers

Techniques

To cut foam: use a sharp blade/X-acto knife. You can use straight edge if needed.

For thermoplastics and foam: heat material to shape with a heat gun and form object as needed.

For round shapes: Worbla: stretch around acrylic ball.

EVA foam: press into round bowl.

Be sure to protect your work surface with a cutting mat or alternative.

Craft foam typically should be the base of your Worbla structure, as Worbla can be fragile alone.

To combine materials, heat the Worbla (shiny side up) and apply craft foam layer. To conserve Worbla, fold Worbla over edges of foam. Alternatively, you may sandwich whole pieces of Worbla and trim excess.

Cut slightly larger pattern to cover craft foam base.

Contact cement - It is good for large foam surface areas and seams. It creates a strong bond if you apply to both sides of the foam. Be sure to follow instructions.

Superglue is useful for small foam attachments.

Hot glue is very general and good for quick and simple attachments. However contact cement and superglue are both cleaner and stronger when used correctly.

For beveled edges, cut foam at a slant with sharp knife or x-acto knife, and you can also Dremel or sand. Beveled edges make the final product look more dimensional.

Priming Armor

Why prime? It creates a smooth, sealed, and clean surface for your paint job. EVA foam absorbs paint, and Worbla has a rough surface. Priming solves these issues. It's especially important for metallic paint.

For the best paint job, keep your priming smooth. Use sandpaper to erase brush strokes after drying.

For spray primers, follow instructions and keep your layers light.

Do not over apply your primer or you may be left with a runny surface.

Primers	Price	Method	Where to Find	Sandable?
Wood Glue	\$30~ for 3L (cheaper in bulk)	Brush	Most hardware stores	N
Gesso	\$30-40 for 1L	Brush	Michaels**, Opus, Deserres	Y
Mod Podge	\$20~ for almost 1L	Brush	Michaels**	Y
Plasti-Dip	\$20-25 per can in Canada	Spray	Online, US, or Canadian Tire	N
Rust-Oleum Primer	\$8~10 for a can	Spray	Most hardware stores	N

**Check for coupons!

Painting

There are many techniques to painting. If you don't need much detail, using spray paint can be a simple solution. To ensure your spray paint does not bleed against the primer, **test your paint first! Lacquer hates enamel and acrylic.**

For details and shading, use acrylic paint. Begin with a base color in between the darkest and lightest (spray paint is fine). Dab on a darker color of the base where shadows would be, vice versa for lighter.