

3. Dry-sand surfaces

Following support removal, thoroughly dry the model and sand all surfaces with 200-grit sandpaper. A light sanding will remove surface imperfections and layers (figure 3).

After the 220-grit sanding, repeat with 320-grit to begin the polishing process.

4. Wet-sand surfaces

Lightly wet-sand the model, progressing through 400, 600 and 1000-grit sandpapers.

The wet-sanding is not intended to remove material. Rather, it reduces the scratches from previous sandings, so a light touch is all that is needed (figure 4).

Between each sanding, rinse the model with water to remove any grit and debris.

5. Micro-mesh sanding (optional)

For an exceptional finish, polish the model with micro-mesh sandpaper (figure 5).

Sand all surfaces with 1500 micro-mesh sandpaper. Depending on the desired results, continue sanding with 1800, 2400, 3600 and 4000 micro-mesh sandpaper.

As with step 4, you can use soapy water, mineral oil or vegetable oil to lubricate the surface while sanding.

6. Polish model

The final step to achieving a clear PolyJet part is to buff and polish the surfaces. Using either a buffing wheel or a rotary tool with a buffing drum, apply a polishing compound to the buffing pad and work it onto all surfaces of the model. Reapply the polishing compound frequently.

An effective polishing compound is 3M Plastic Polish. Polishing compounds for plastics are also available from several other manufacturers. Some of these compounds do not require a buffing wheel.

After polishing all surfaces, buff off the compound with a soft cloth or a clean buffing pad. Your PolyJet model is now ready to be used as a lens, container, or cover (figure 6).

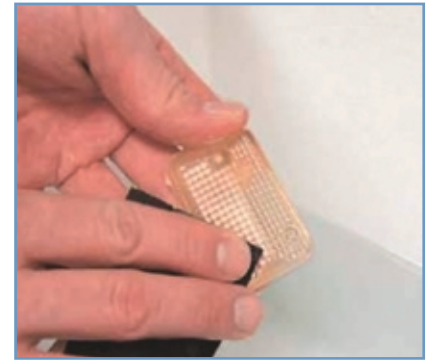


Figure 4. Wet-sanding. Wet-sand the model to begin polishing the clear surfaces.



Figure 5. Micro-mesh sanding (optional). Using micro-mesh sandpaper, polish out all surface scratches prior to buffing.



Figure 6. Finished model. The polished PolyJet model has the clarity needed for product demonstration.

Tip: When wet-sanding, you can add a few drops of dishwashing soap or vegetable or mineral oil to the water to lubricate the surface.

Disclaimer

Objet Geometries Ltd. is not responsible for misuse of our products or their use in conjunction with unsafe or improperly maintained equipment or for uses other than intended as specified in this application note.

Objet Geometries Ltd.
Headquarters
2 Holzman St., Science
Park
P.O.Box 2496,
Rehovot 76124, Israel
Tel: +972-8-931-4314
Fax: +972-8-931-4315

Objet Geometries Ltd.
Europe
Leuvensesteenweg 388
1932 Sint-Stevens-
Woluwe
Belgium
Tel: +32-2-717-6502
Fax: +32-2-717-6500

Objet Geometries Inc.
North America
5 Fortune Drive
Billerica,
MA 01821
USA
Tel: 1-877-489-9449
Fax: 1-866-676-1533

Objet Geometries
AP Limited
13 Floor, Unit 52A,
HITEC,
1 Trademart Drive
Kowloon Bay
Hong Kong
Tel: +852-2174-0111
Fax: +852-2174-0555

©2007 Objet Geometries, Ltd. Objet™, Objet Geometries™, PolyJet™, Eden250™, Eden260™, Eden330™, Eden350™, Eden350V™, Eden500V™, Eden™, SHR™, PolyLog™, QuadraTempo™, Objet Quadra™, FullCure® and Objet Studio™ are trademarks of Objet Geometries Ltd. and may be registered in certain jurisdictions. All other trademarks belong to their respective owners.

