## Finishing Degrees at Materialise

### Content

<table>
<thead>
<tr>
<th>Standard/unpainted finishes</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic finish</td>
<td>2</td>
</tr>
<tr>
<td>Support Marks removed</td>
<td>2</td>
</tr>
<tr>
<td>NextDay finish</td>
<td>2</td>
</tr>
<tr>
<td>Normal A side/2 sides</td>
<td>2</td>
</tr>
<tr>
<td>Normal</td>
<td>3</td>
</tr>
<tr>
<td>Smooth</td>
<td>3</td>
</tr>
<tr>
<td>Primer A side / 2 sides</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Painted/coloured finishes</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical transparent paint</td>
<td>4</td>
</tr>
<tr>
<td>Cosmetic transparent paint</td>
<td>4</td>
</tr>
<tr>
<td>Spray Painted</td>
<td>4</td>
</tr>
<tr>
<td>Flocking</td>
<td>4</td>
</tr>
<tr>
<td>Soft Touch</td>
<td>5</td>
</tr>
<tr>
<td>Color dyed</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Painted/coloured finishes – Preferred RAL/NCS Specification</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dead Mat paint A/2 side</td>
<td>6</td>
</tr>
<tr>
<td>Mat paint A/2 side</td>
<td>6</td>
</tr>
<tr>
<td>Satin paint A/2 side</td>
<td>6</td>
</tr>
<tr>
<td>High gloss paint A/2 side</td>
<td>6</td>
</tr>
<tr>
<td>Fine texture paint A/2 side</td>
<td>7</td>
</tr>
<tr>
<td>Medium texture paint A/2 side</td>
<td>7</td>
</tr>
<tr>
<td>Coarse texture paint A/2 side</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finishing Degrees in Vacuum casting</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>9</td>
</tr>
<tr>
<td>Normal A Side</td>
<td>9</td>
</tr>
<tr>
<td>Sandblasted</td>
<td>9</td>
</tr>
<tr>
<td>Colored in mass</td>
<td>10</td>
</tr>
<tr>
<td>Smooth A Side</td>
<td>10</td>
</tr>
<tr>
<td>Primer Paint</td>
<td>10</td>
</tr>
<tr>
<td>Fine texture paint</td>
<td>11</td>
</tr>
<tr>
<td>High Gloss Paint</td>
<td>11</td>
</tr>
<tr>
<td>Mat paint</td>
<td>11</td>
</tr>
<tr>
<td>Satin Paint</td>
<td>12</td>
</tr>
<tr>
<td>Soft Touch Paint</td>
<td>12</td>
</tr>
<tr>
<td>Spatter Paint</td>
<td>12</td>
</tr>
<tr>
<td>Translucent</td>
<td>13</td>
</tr>
</tbody>
</table>
**Standard/unpainted finishes**

**Basic finish**  
**Stereolitography**  
Basic cleaning without sanding and sandblasting  
- Supports removed, but support points a bit visible  
- Cured  
- Building layers visible

**Support Marks removed**  
**Stereolitography**  
- Supports removed  
- Cured  
- Sandblasted

**NextDay finish**  
**Stereolitography**  
Only sanding where support was + sandblasting  
- Supports removed  
- Cured  
- Supports sanded away P150  
- Sandblasted  
- Building layers less visible

**Normal A side/2 sides**  
**Stereolitography**  
Only sanding A faces outside lines away / both sides + sandblasting  
- Supports removed  
- Cured  
- A surface / All surfaces sanded P150 or P240  
- A surface / All surfaces sandblasted  
- Building layers not visible
Standard/unpainted finishes

Normal Laser Sintering
- Powder removed
- Sandblasted

Smooth Laser Sintering
- Automated smoothing, not for fragile parts
- Powder removed
- Sandblasted
- Extra: Smoothing machine

Primer A side / 2 sides
Vacuum Casting, Fused Deposition Modelling, Laser Sintering, Stereolithography
- Primer basic or ready to paint finish
- Basic finish
- A/all surfaces sanded P150 or P240
- Stereolithography/Fused Deposition Modelling parts first receive a polysurferacer paint
- Primer paint all surfaces (light grey)
- (ready to paint) primer is sanded with p400
Painted/coloured finishes

**Technical transparent paint**
Stereolithography (Tusk XC2700T)
Transparent Tusk parts, building layers visible. Part can contain small entrapments
- Basic finish
- Transparent paint (all surfaces)
- Support points sanded

**Cosmetic transparent paint**
Stereolithography (Tusk XC2700T)
Transparent Tusk parts, building layers not visible (cutting might be needed)
- Basic finish
- All surfaces sanded P240 + P400
- Transparent paint (all surfaces)

**Spray Painted**
Laser Sintering, Stereolithography, Fused Deposition Modelling, Polyjet
Spray paint on the building surface: no sanding!
- Powder removed
- Sandblasted
- Extra: color paint

**Flocking**
Stereolithography, Laser Sintering, Fused Deposition Modelling
- Epoxy glue applied with paint gun
- Covered with flocking fiber
**Soft Touch**

Due to soft touch effect painted parts can not be high gloss (they are matt).
- Primer finishing
- Requested color
- Soft touch coated (transparent)

**Color dyed**

*Laser Sintering*

Dyed with color (black, blue, red)
- Powder removed
- Sandblasted
- Dyed

www.materialise.com
Painted/coloured finishes – Preferred RAL/NCS Specification

**Dead Matt paint A/2 side**
Dead Matt colour paint (all surfaces)

**Mat paint A/2 side**
Matt colour paint (all surfaces)

**Satin paint A/2 side**
Satin colour paint with special texture (A side)

**High gloss paint A/2 side**
High gloss colour paint (all surfaces)

**Finishing steps are same for all painted/coloured finishes:**
- Basic finish
- All surfaces sanded P150 + P240
- Primer
- Finish p400
- Paint all surfaces

**Gloss factors**
- Dead Matt = 10% gloss
- Matt = 30% gloss
- Satin = 50% gloss
- High gloss = 90% gloss

Look at the reflection in the samples
Finishing Degrees at Materialise

Painted/coloured finishes – Preferred RAL/NCS Specification

Finishing degrees

Primer + paint

This finishing degree represents a Stereolithography part which is sanded, defects are filled with mastique, a primer paint which is finished ready to paint and a final paint and all gloss rates.

For an Laser Sintering or Fused Deposition Modelling part this finishing degree includes a finished layer of polysurfacer which is covered with a primer. The Primer paint is finished ready to paint and a final color paint with a gloss rate of 50 or 90%.

Applied paint can have a 50% or 90% gloss rate for Laser Sintering and Fused Deposition Modelling parts, all textures can be selected.

Fine texture paint A/2 side
Matt colour paint with fine texture (A side)

Medium texture paint A/2 side
Matt colour paint with medium texture (A side)

Coarse texture paint A/2 side
Matt colour paint with coarse texture (A side)

(polysurfacer + paint is available for paints with a gloss rate of 10 and 30%)

For Stereolithography parts all gloss rates will be applied on a primer base.
Other finishing degrees

Polysurfacer basic
Finishing degree includes applying a polysurfacer on a Stereolithography or Fused Deposition Modelling part. No sanding of the polysurfacer. Finishing degree is changed to polysurfacer basic on the documents used to communicate with the customer. No color or gloss rate can be selected.

Polysurfacer ready to paint
Important to know is that polysurfacer only supports 10% and 30% gloss rate paints. A polysurfacer ready to paint is a Stereolithography or Fused Deposition Modelling part with a polysurfacer layer that is finished smooth. This finishing degree is suited when the customer plans further finishing or when he plans to paint the part with a 10% or 30% gloss rate. No color or gloss rate can be selected.

Primer Ready to paint
This finishing degree includes applying a primer on a SLA part. The part itself is sanded, defects are filled with mastique. Top layer is a primer paint which is finished ready to paint. For an Stereolithography or Fused Deposition Modelling part this finishing degree includes a finished layer of polysurfacer which is covered with a primer that is finished ready to paint. No color or gloss rate can be selected.

Texture D30 and D50
These textures are created by adding a powder in the paint. (multitex). It is available in two different roughnesses, fine powder (D30), rough powder (D50). Standard mixture ratio is 10% power.
Basic
**Pigmented black**
Just removing gates and flash and closing holes on A faces
- Removing gates and runners
- Flash
- Repair

Normal A Side
**Pigmented black**
Idem like Basic finish + A faces painted with mat black paint with structure
- Removing gates and runners
- Flash
- Repair
- Black mat paint with structure

Sandblasted
**Pigmented black**
Idem like Basic finish + sandblasting
- Removing gates and runners
- Flash
- Repair
- Sandblasting
Finishing Degrees in Vacuum casting

Colored in mass
Pigmented in xx
Finished like Translucent finish but PU material is pigmented in the mass (color has to be defined)
• Removing gates and runners
• Flash

Smooth A Side
Pigmented black
Idem like Normal A face but A faces painted with mat black paint without structure
• Removing gates and runners
• Flash
• Repair
• Black mat paint without structure

Primer Paint
Standardly pigmented black
Idem like Basic + A faces painted with primer paint (Yellow or Grey)
• Removing gates and runners
• Flash
• Repair
• Primer paint

www.materialise.com
Finishing Degrees at Materialise

Finishing Degrees in Vacuum casting

Fine texture paint
Standardly pigmented black
A faces finished as Mat Paint A side + a paint texture (RA 3.2-4.5-6.3 or 9.0)
- Removing gates and runners
- Flash
- Repair
- Primer
- Painted with 2K PU colored paint fine texture

High Gloss Paint
Standardly pigmented black
A faces painted High gloss color paint (color has to be defined)
- Removing gates and runners
- Flash
- Repair
- Primer
- Painted with 2K PU colored paint glossy

Mat paint
Standardly pigmented black
A faces painted in mat color paint (color has to be defined)
- Removing gates and runners
- Flash
- Repair
- Primer
- Painted with 2K PU colored paint mat
Finishing Degrees at Materialise

Finishing Degrees in Vacuum casting

Satin Paint
*Standardly pigmented black*
A faces painted in satin color paint (color has to be defined)
- Removing gates and runners
- Flash
- Repair
- Primer
- Painted with 2K PU colored paint satin

Soft Touch Paint
*Standardly pigmented black*
A faces painted in Soft touch paint (color has to be defined)
- Removing gates and runners
- Flash
- Repair
- Primer
- Painted with 2K PU colored paint glossy

Spatter Paint
*Standardly pigmented black*
A faces finished as Mat Paint A side + a Spatter finishing
- Removing gates and runners
- Flash
- Repair
- Primer
- Painted with 2K PU colored paint coarse texture
Translucent

No pigment, or very slightly colored. Color matching sample highly advised. Finishing translucent Vacuum Casting parts

- Removing gates and runners
- Flash