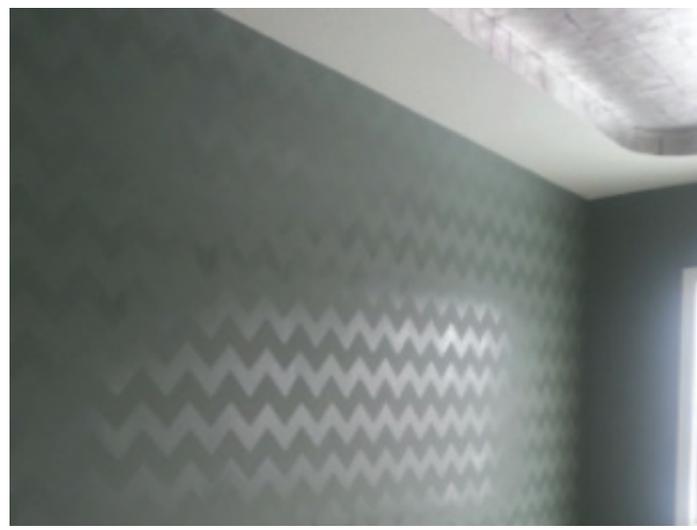


Defining Gloss Levels

Gloss levels can have a huge impact on the finished result of a coating.

A high gloss coating, while more durable, will enhance any defects in the surface. While a more matt finish coating is not as durable but can help to mask any imperfections.

MPI standards have been established to realign the gloss levels in latex to those retained in alkyds. MPI has moved away from 'traditional' names for gloss levels as these names and levels differ from manufacturer to manufacturer.



Different gloss levels used for decoration.

MPI Gloss and Sheen Standards are now as follows:

Gloss Level	Previous Industry Description	Gloss at 60 °		Sheen at 85 °
Gloss Level 1	Traditional matte finish - flat	max 5 units	and	max 10 units
Gloss Level 2	High side sheen flat - a 'velvet-like' finish	max 10 units	and	10-35 units
Gloss Level 3	Traditional 'eggshell-like' finish	10-25 units	and	10-35 units
Gloss Level 4	Satin-like finish	20-35 units	and	min 35 units
Gloss Level 5	Traditional semi-gloss	35-70 units		
Gloss Level 6	Traditional gloss	70-85 units		
Gloss Level 7	High gloss	85 units +		

How is gloss measured?

To measure gloss reflectance, a single beam of light is deflected off the surface, at a prescribed angle, into a receptor. This receptor gauges the intensity of that light in gloss units. The testing equipment is standardized by the use of specially produced, polished, glass or ceramic tiles. The higher the number of units, the shinier the surface. (ASTM method D 523 outlines the procedures for performing the test)

The most common angle used by the coatings industry to break up the basic divisions of gloss is 60° from the perpendicular (or 30° above the plane). It gives a good general evaluation of gloss except at the extremes of low and high gloss surfaces.

For the most part, sheen is used to describe the low angle gloss (85° from the perpendicular, or 5° above the plane) of a surface. Variations in the sheen of a surface are most noticeable in low gloss coatings. Measurements at this angle are generally thought to be a more accurate indicator of the transition between flat and eggshell.

What coating properties alter gloss levels?

The gloss level of a coating is influenced by surface roughness. In a paint or coating, the protrusion of pigment particles through the resin or binder layer causes the diffraction of the light, and a dullness is visible. Where the pigment is completely coated by the resin, the surface is smoother and the angular light is reflected unhindered, producing a glossy appearance, not unlike a polished glass surface.

Gloss influence on color :

As gloss is a property of reflected light, it can influence the visual color of a surface when viewed from various angles. This is commonly seen where coatings that have been tinted to the same color, but have different gloss levels, are applied side by side on the same substrate. Viewing from a position directly perpendicular from the surfaces, with the light directly behind, will show the closest color. Moving to an angle away from the perpendicular (or moving the light source), will show a color difference caused by the difference in gloss. When a coating surface has a 60° and 85° gloss that are the same (or very similar), the uniformity in appearance is apparent from all angles. This reduces visible shading effects from slightly non-uniform surfaces.