How can I measure Haze?

Haze describes the milky halo or bloom adjacent to the reflected image.

Reflection haze on a vehicle body causes a "milky" finish and a drop in reflection contrast.

Surface haze can be problematic in most coating applications including automotive manufacture, powder coatings and other high gloss coatings. It can be attributed to a number of causes including incompatible materials in a formulation, difficulties in application and problems encountered during drying/curing/stoving.

Reflected light sources in surfaces with medium and high haze values.
Coatings without haze can be seen to have a deep reflection and have high reflected contrast. Those with a lower level of reflection haze exhibit a slight “milky” finish which can be seen at the surface.

When viewing the reflection of a strong light source in a surface with high haze the image “blooms” and has a bright halo around it.

Haze is an important measure for highly polished metals and is often associated with polishing marks and machining direction.

Gloss-haze meters are traditionally used to measure this parameter and use a standard glossmeter design with additional light stops and diodes to measure the haze component $2^\circ$ either side of the specular.

Gloss-haze instruments have not found mainstream acceptance in the coating industry because to take repeatable measurements the sample surface needs to be completely flat and un-textured. The relative high cost of these instruments has also been found to be prohibitive.

**Measuring Haze with the Novo-Gloss IQ**

The Novo-Gloss IQ automatically compensates for sample surface flatness and texturing allowing haze measurements to be taken on most product surfaces.

Gloss Haze values are calculated using the angular tolerances described in ASTM E430. The instrument can display the natural haze value (HU) or Log Haze Value (HULOG). When measuring haze values, higher numbers indicate a lower quality surface. A high gloss surface with zero haze has a deep reflection image with high contrast.

Log Haze Values are commonly quoted for paints and coatings as this scale has increased resolution at the haze levels commonly seen on this type of surface.