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## **Opacity Meter Comparison for Colored Plastic Film** **Correlation of Opacity Readings for (3) Opacity Meter models**

Film Color:	Oakland RT-6000 Opacity (CTU)	Davinor TOM 11 Opacity (%)	BYK-Gardner Hazegard Transmittance (%)	(100 – T, %)
Tan	18.0	60.8	59.9	40.1
White	15.0	48.1	71.4	28.6
Red	13.0	64.9	33.2	66.8
Light Blue	8.0	26.9	77.4	22.6
Black	80.0	89.3	12.9	87.1
Yellow	10.0	46.0	66.2	33.8

**Please Note:**

- The Oakland RT-6000 Opacity Meter operates on the principal of measuring light absorption by the film sample, compared to a scale of 0% absorption (calibrated with the light source on and no film sample in place) and 100% absorption (calibrated with the light source off and no film sample in place). The light source is line-voltage powered, and produces full-spectrum, visible light, which is not filtered; and the light passes through the sample with the light source on one side and the light detection sensor on the other side of the sample. It is not a reflective-type system, nor does it use black/white reflectance plates for calibration. Designed as a comparator or relative opacity measurement device.
- The Davinor TOM 11 Opacity/Transmittance Meter uses a 9V DC white or green LED visible light source; can be provided with filter if requested. Measures % opacity or how much light is blocked from the measurement beam by the material. Designed as a comparator or relative opacity measurement device.
- The BYK Hazegard Plus uses a filtered visible light source, light is transmitted through material and collected by coated sphere with detector. Transmittance is the ratio of total transmitted light to incident light; it is reduced by reflectance and absorbance.

The Hazegard Plus is designed, primarily, to measure haze, which is wide-angle light scattering which reduces contrast and results in a milky or cloudy appearance in the film material.