



Raw Umbers

Natural Iron Oxides

Umbers are naturally occurring Iron Oxides that are highly valued for their transparency and neutral chromaticity. In their natural “crude or raw” form, their chemistry is similar to Yellow Iron Oxide. Like Yellow Iron Oxides, Raw Umbers have limited heat stability at temperatures greater than 350°F/175°C. At higher temperatures, Umbers convert to a Red Iron Oxide, Fe₂O₃ chemical form just like a Yellow Iron Oxide. This heating conversion is normally referred to as burning, hence the term Burnt Umber.

Our Good, Better, Best material grading system is unique. While the relative differences may be minor, matching material characteristics as close as possible will ensure both excellent performance and maximum value. In some cases, using a better grade of material may be a more cost effective alternative because less is required to obtain the color you need. Once we understand your performance and cost goals, we can recommend the right product and provide a sample for your evaluation.

Product Range

Raw Umbers are considered the “neutral toners” in a color pallet. They can soften a brighter color without deteriorating the chromaticity of the brighter pigment.

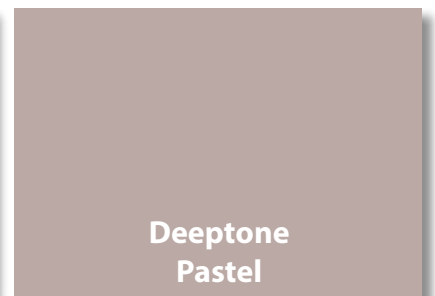
406RU



414RU



418RU



General Pigment Properties

Raw Umber

Crystal Structure	Goethite
Chemical Composition	FeO-OH
CAS#	12713-03-0
Color Index#	Brown 7
Light Fastness	Permanent
Chemical Resistance	Excellent
Heat Stability (°C/°F)	175°/350°

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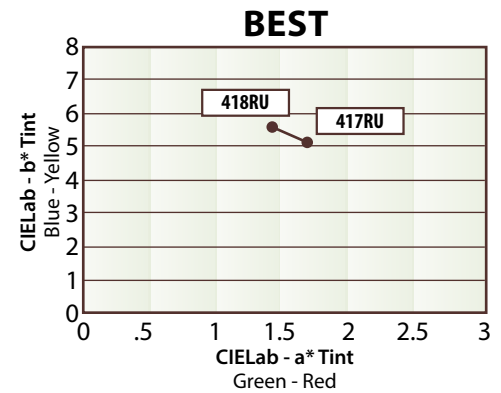
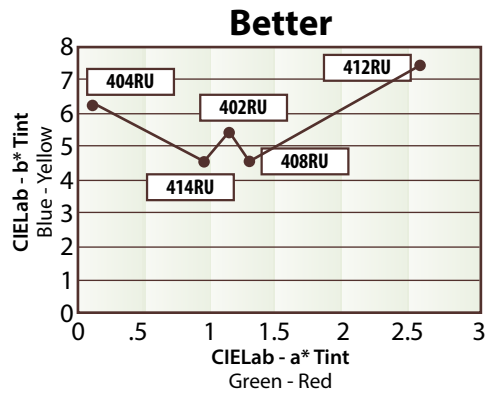
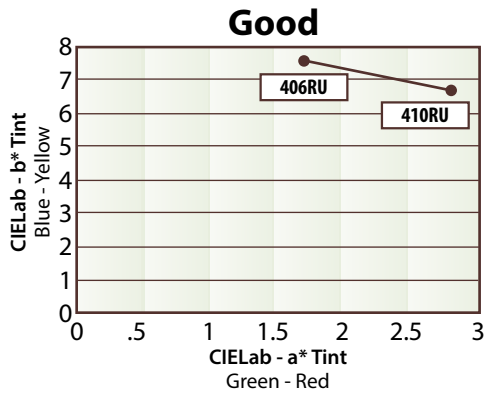
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Choosing the Right Material

Hoover Color offers 9 standard Raw Umbers. They vary in color-shade, dispersibility and resulting viscosity. While most commonly used in architectural tinting systems, Raw Umbers are used in transparent wood stains and cement based applications such as stucco.

Product Range	Hegman	Relative Color Strength	325 Mesh	pH	Relative Viscosity	Relative Cost
Good	4.5	100%	0.05%	8.5	100%	100%
Better	5.0	110%	0.05%	8.0	100%	110%
BEST	6.0	120%	0.02%	8.0	110%	115%



Color by Application

As with any Iron Oxide Pigment, Raw Umbers can be used in a wide variety of coating, stain and cement applications.

TiO₂/418RU

408RU

402RU

Paint Tint

Wood Stain

Stucco

Examples of tinting with Raw Umbers to soften brighter colors.

TiO₂/Yellow 14

TiO₂/Blue 15:1

TiO₂/Violet 23

TiO₂/Yellow 14/418RU
Softening AAOT Yellow Tint

TiO₂/Blue 15:1/418RU
Phthalo Blue Tint

TiO₂/Violet 23/418RU
Carbasol Violet Tint

Hoover Color pigments have been the industry standard since 1923. Whether you have a material or cost issue – or both - we can help. For engineered pigments with exceptional performance, quality and value, give us a call or email us today to get the conversation started. We will help you determine the right product for your specific application, and provide a sample for your evaluation.