



General Purpose Tinting

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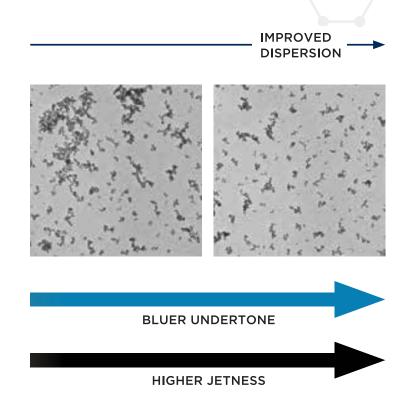
Birla Carbon offers Raven 14 Powder, Raven 16 Powder, Raven 22 Powder, and Raven 410 Powder carbon blacks, the industry-recognized carbon blacks for use in paints and coatings. The unique morphologies of these products provide easy dispersion and an eye-appealing blue tone in the end application such as automotive, architectural, and industrial coatings. Depending on your tinting requirement, the Birla Carbon team will work with you to select the product that best fits your application.

PERFORMANCE PROPERTIES

Carbon black provides pigmentation (color and undertone) for tinting applications. Carbon black dispersion, dispersion stability, and the specifics of the formulation significantly impact color performance. Generally, tinting applications use a low surface area carbon black to enhance the desirable blue undertone.

Raven 14, Raven 16, Raven 22, and Raven 410 carbon blacks are low surface area products that absorb light to provide color strength. They have the appropriate light scattering properties to bring out a blue undertone.

Carbon black dispersion and dispersion stability is very important in achieving the end use performance. These Raven blacks are very easy to disperse and stabilize due to their unique morphologies and true powder form. These characteristics also bring out an attractive blue undertone in the application.



Birla Carbon has dedicated teams and capabilities focused on specialty carbon black markets, including plastics, inks, and coatings. Our Raven and Conductex specialty carbon blacks meet the unique requirements in these markets and provide the desired properties of color, conductivity, viscosity, and UV protection for a wide range of applications. Our contemporary research

infrastructure and state-of-the-art technology centers make us well equipped to collaborate with our customers and provide the best possible solution to any challenge in the specialty carbon black market. With a presence in each of the key markets of Asia, Europe, and the Americas, Birla Carbon stands ready to deliver consistent, high-quality products and services worldwide.`

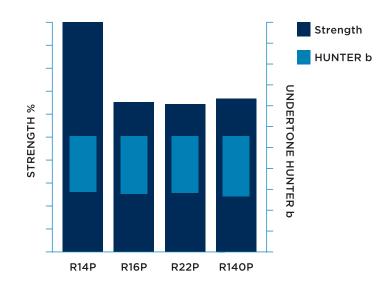


TYPICAL PROPERTIES

PROPERTY	UNIT	R14P	R16P	R22P	R410P
STSA	m²/g	44	29	27	26
OAN	cm³/100g	111	105	113	68
Tinting Strength	% IRB #3	66	46	44	47
рН	-	3	9	9	8

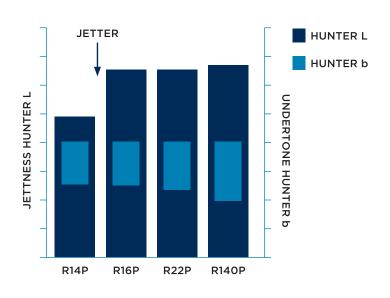
TINT PERFORMANCE

All of these products offer a very blue tone in tints. Raven 14 Powder carbon black offers a significant strength advantage over the other three products while retaining a desirable blue undertone.



MASSTONE PERFORMANCE IN SOLVENT ACRYLIC ENAMEL

While full color is not a key performance property for these products, Raven 14 Powder carbon black offers the jettest masstone.



Collaborating with our customers means much more than finding a product solution. It means having the drive to explore solutions to a challenge from every angle, and leveraging our proven, global expertise to do it. It means

creating practical innovations that deliver real results. And it means creating a seamless experience that is built on a relationship, not a process. The experience begins with a conversation. **Please contact us** to get started.

ABOUT BIRLA CARBON

Birla Carbon is a leading global supplier of carbon black. As one of the flagship businesses of the leading Indian multinational conglomerate, the **Aditya Birla Group**, Birla Carbon provides innovative sustainable carbon black solutions that enhance the performance of paints and coatings, inks and toners, plastics, adhesives, sealants, textile fibers, mechanical rubber goods, tires, Energy Systems, and Sustainable Carbonaceous Materials.

As an ardent practitioner of sustainable development, Birla Carbon's Sustainable Operational Excellence (SOE) strategy focuses on employee safety, environmental stewardship, efficient use of carbon sources, product circularity and sustainability, and

a key focus on conducting operations in a socially and ethically responsible manner. Birla Carbon has been recognized by EcoVadis since 2016 as an advanced practitioner of sustainability. Our current rating is available on the Birla Carbon Sustainability webpage.

Birla Carbon's Purpose, 'Share the Strength', is about balanced and shared leadership, working at the product level to innovate cutting edge solutions through collaboration with its people, customers, and communities and backed by knowledge built over a century.

For more information, visit birlacarbon.com, or follow us @BirlaCarbon on Twitter, LinkedIn, Facebook, or Instagram.



SHARE THE STRENGTH

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