



## Kraton Rosin Esters

### For Sustainable High-Performance Clay Targets

With over 92% USDA-certified biobased content, Kraton rosin esters enable clay target producers to shift to renewable raw materials without compromising performance. Our rosin esters are sourced from sustainably managed forests and offer a sustainable alternative to conventional clay targets while maintaining the required flight and breakability characteristics.

Clay targets developed with Kraton rosin esters are an environmentally friendly option with polyaromatic hydrocarbon (PAH) content below 50 ppm. This allows the fragments to remain on the shooting ground without cleanup, unlike conventional targets that exceed 50 ppm of PAH. Additionally, our rosin esters adhere to the requirements of non-containing PAH in binders as specified by the International Shooting Sports Federation (ISSF) technical standards.

#### Sustainable Advantages

- » The biogenic carbon contained in the Kraton Rosin Ester is higher than the carbon emitted during its production in a cradle-to-gate process\*
- » Replacing fossil-based materials with bio-based materials can reduce fossil Global Warming Potential (GWP)\*
- » >92% biobased certified under the USDA BioPreferred® Program\*\*
- » ICSS PLUS Sustainability declarations are available from selected manufacturing plants for use in certified mass balance accounting
- » Complies with the ISSF requirement of being bio-friendly and containing less than 50ppm of polyaromatic hydrocarbons
- » Not considered as microplastic\*\*\*

#### Applications

- » Trap and Skeet shooting
- » Professional use
- » Recreational use

#### Biobased Chemistry

- » Produced from by-products of the Kraft pulp industry
- » Sourced from responsibly managed forests
- » Not in competition for land with food crops
- » Not genetically modified (non-GMO) and don't require land-use change

\* The actual life cycle performance improvement that is achieved using Kraton products can only be concluded through an ISO-certified process that considers all life cycle stages of the end product.

\*\*The USDA Certified Biobased Product label is a certification mark of the U.S. Department of Agriculture.

\*\*\* The product is not considered a polymer according to the REACH definition; therefore, not a microplastic under proposed ECHA restriction.

## Product Properties



	Acid Value (mg KOH/g)	Softening Point (°C)	Tg (°C)	Color Neat (Gardner)	Color Solution (Gardner)	Manufacturing Region
SYLVATAC™ RE85 (EU)	83	83	33	-	2	EU
SYLVATAC RE85 (US)	82	82	30	5	-	US
SYLVATAC RE2098	8	97	46	-	4	EU
SYLVALITE™ RE100L	10	98	48	4	-	US
SYLVALITE RE100F	5	100	52	-	2	EU

### Supply Security

A global, well-established network of bio-refineries and upgrading facilities.

### Consistency

Produced from refined pine feedstock to controlled specification allowing formulators to obtain finished products meeting the required standards.

### Technical Support

Technical service labs located in key regions of the world, give the ability to work closely with our customers to achieve product excellence and value.

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