

# RELENTLESSLY DRIVEN TO OUTPERFORM

**FLEXSYS** > **Crystex™**  
**Insoluble Sulfur**

The premier and most consistent vulcanizing agent on the market, Crystex™ insoluble sulfur products offer many processing advantages along with premium performance, leading to increased productivity and lower operating costs for our customers. From superior dispersion to decreased scrap, Crystex not only delivers critical processing benefits but also enhanced productivity by enabling faster calender speeds and reduced mix cycle time.

**With Crystex, you can expect:**



**Enhanced productivity**



**Proven quality**



**Process flexibility**



**Maximum yield**

**Crystex  
HSOT20**



**Crystex  
HDOT20**



**Crystex  
Cure Pro**



**Cure Pro**, the newest Crystex product, sets a new standard for improved productivity, enabling faster mixing times and more uniform cross-linking due to significantly improved dispersion.



## CRYSTEX PRODUCTS

### Crystex Cure Pro

- ▶ Superior dispersion
- ▶ Improved thermal stability
- ▶ Enhanced flow
- ▶ A higher sulfur content
- ▶ Uncompromised safety

### Crystex HDOT20 (high dispersibility)

- ▶ Crystex HDOT20 is designed for improved flowability and dispersibility
- ▶ The improved product flowability provides easy handling and a reduced dust environment with less tendency for product to compact
- ▶ The special additive package in Crystex HDOT20 helps reduce the formation of agglomerates, which can be formed during mixing as a result of the small particle size of insoluble sulfur
- ▶ Because insoluble sulfur is metastable, temperatures should be kept as low as possible during mixing. Between 100° and 130°C, significant reversion can take place.

### Crystex HSOT20 (high-heat stability)

- ▶ Crystex HSOT20 is a special grade with high thermal stability
- ▶ Because insoluble sulfur is metastable, temperatures should be kept as low as possible during mixing. Between 100° and 130°C, significant reversion can take place.
- ▶ Crystex HSOT20 is a mixture of 80% insoluble sulfur and 20% process oil

## MAJOR APPLICATION AND PROPERTIES

**Crystex insoluble sulfur is polymeric sulfur and is insoluble in elastomers. Consequently, it will retard bin scorch, prevent migration of sulfur, and preserve surface tack. This is important in the manufacture of tires and other plied up rubber goods.**

**At vulcanization temperature, Crystex will depolymerize to soluble sulfur and will behave similar to “rubber maker’s” sulfur.**

**Crystex is a metastable product which can revert to soluble sulfur if not stored under proper conditions.**

**Reversion of Crystex to soluble sulfur is also catalyzed by alkaline products. The presence of alkaline accelerators can be critical.**

**Crystex is used in compounds containing a relatively large sulfur loading, above the solubility of sulfur in the elastomer.**

**Crystex is nonstaining and nondiscoloring.**

Our recommended products will change depending on rubbers and formulation. For further information regarding our products, visit **Flexsys.com**



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