

FACT SHEET

UH-1000 SERIES PARTICLES ADDITIVES FOR POLYURETHANES

PRODUCT DESCRIPTION:

UH-1000 series performance additives are surface-activated, Ultra High Molecular Weight Polyethylene (UHMWPE) in powder form. Inhance Technologies' proprietary Reactive Gas Technology™ (RGT) permanently increases the surface energy of UHMWPE particles making them highly compatible in polyurethane systems. Possessing surface energy in the range of 60 dyne/cm, UH particles are readily dispersed in polyols (ethers or esters) and all types of prepolymers, imparting abrasion resistance, reducing coefficient of friction and increasing mechanical strength of polyurethane formulations. UH series performance additives provide exceptional durability and extended service life to parts and coatings in severe wear environments including mining, oil field, conveyance rollers, high performance composites and transportation. This extended service life decreases production down time, labor and replacement costs, providing higher value in products incorporating these performance additives. This extended service life decreases production down time, labor and replacement costs, providing higher value in products incorporating these performance additives.

APPLICATIONS:

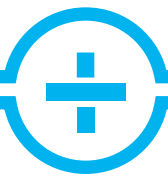
- Hot and cold cure elastomers
- Structural adhesives
- Anti-wear, slip & low friction coatings

FEATURES:

- Excellent abrasion resistance
- Reduced coefficient of friction
- Enhanced work of fracture
- Enhanced tear strength
- Prolongs wear life
- Superior dispersion in polyurethanes compared to PTFE

PRODUCT OFFERINGS:

PRODUCTS	PARTICLE SIZE μm
UH-1045	300
UH-1080	125
UH-1150	69
UH-1250	53
UH-1500	45
UH-1700	38
UH-1750	24
UH-1900	10



TYPICAL PHYSICAL PROPERTIES:

PROPERTY	VALUE
SURFACE ENERGY	~60 DYNE/CM
SPECIFIC GRAVITY	0.93 - 0.94
BULK DENSITY	0.32 - 0.50 G/CC
MOLECULAR WEIGHT	3MM - 5MM
FORM	FREE FLOWING POWDER
SHAPE	SPHERICAL
MELTING POINT	N/A
HYDROXYL VALUE	<<1
ACID NUMBER	N/A
RECOMMENDED SERVICE TEMPERATURE	<250°F

RECOMMENDED LOADING:

- 5 - 30% loading depending on application
- May be added to the uncured system as supplied with mixing or agitation

SHELF LIFE:

- 10 years from the date of manufacture, when stored to ambient conditions in the original container.

STANDARD PACKAGING:

- 50 lb. cardboard box with polybag insert
- 200 lb. fiber drum with polybag insert (150 lb. for UH-1700 and UH-1750)
- Other sizes available upon request

HANDLING & STORAGE:

- Safe handling of this product should include the use of dust masks, safety glasses and gloves. Avoid breathing dusts - use the adequate ventilation. Product should be stored in original containers. Refer to Safety Data Sheet (SDS) for detailed information.

REGULATORY:

- Please refer to Section 15 (Regulatory Information) on the Safety Data Sheet (SDS) for more information.