

# UH-1000 Powders Series

# Ingredients

## Description

Inhance Technologies' UH-1000 series Performance Additives are a range of Ultra-High Molecular Weight Polyethylene (UHMWPE) particles that are surface activated, making them highly compatible and dispersible in formulated systems. Possessing surface energies up to 60 dynes/cm, these particles are easily dispersible in CASE (coatings, adhesives, sealants and elastomers) formulations, imparting abrasion resistance, wear resistance, reducing coefficient of friction and increasing mechanical strength.

## Particle Sizes Available

Grade	D50 particle size (microns)
UH-1035	260
UH-1045	230
UH-1080	125
UH-1150	73
UH-1250	58
UH-1500	45
UH-1700	37
UH-1750	23
UH-1900	10

## Dosage and Use

Comprised of highly durable and long-lasting materials, Inhance Technologies' UH series provide exceptional durability and extended service life in severe wear environments including mining, oil field, conveyance rollers, high performance composites and transportation industries.

Extended service life decreases production downtime and replacement costs, thus maximizing productivity. Incorporation of UH grades into CASE systems results in superior wear resistance, reduced coefficient of friction and improved tear resistance.

Typical loading of these additives ranges from 5% - 20%. UH-1000 series powders can be added in coatings and adhesive formulations, cast elastomers, as well as thermoplastic and engineering plastics to improve performance.

## Typical Physical Properties

Property	Value
Form	Free flowing powder
Specific Gravity	0.93-0.94
Molecular Weight	3-7M g/mol
Surface Energy	~50 Dyne/cm (water wettable)

**UH-1000 series' products provide exceptional durability and extended service life in severe wear environments.**

# Ingredients

## Benefits

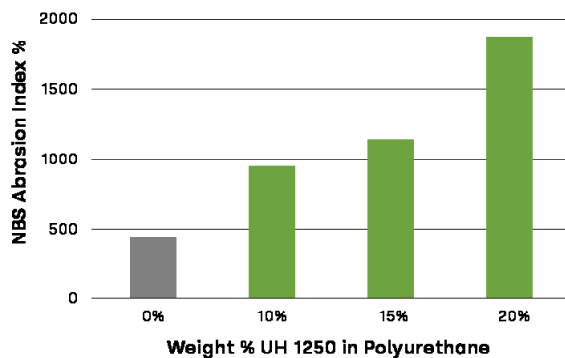
- Excellent abrasion resistance
- Reduced coefficient of friction
- Enhanced work to fracture
- Enhanced tear strength
- Prolongs wear life
- Superior dispersion

## Applications

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



## Abrasion Data



**Addition of UH-1000 products to PU improves the wear resistance 4 times. Tested using NBS Abrasion Index (ASTM D1630).**

## Conclusion

**Addition of UH-1000 series' products improve wear resistance and prolongs the life of cast wheels and rollers, reducing formulation costs, replacement time and expense.**

Inhance Technologies solutions' can be applied in a number of industries to improve product performance and sustainability:

**Consumer Goods      Transportation**  
**Industrial Products      Fuel Systems**  
**Healthcare**

Properties reported here are based on limited testing. Inhance Technologies makes no representation that the material in any particular shipment will conform exactly to the values given, except when specified. Inhance Technologies and its affiliates shall not be responsible for the use of this information, or of any product, method, or apparatus mentioned, and you must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and for the health and safety of your employees and purchasers of your products. No warranty is made of the merchantability of fitness of any product, and nothing herein waives any of the Seller's conditions of sale.

## Contact Information

+1.800.929.1743 | [additives@inhancetechnologies.com](mailto:additives@inhancetechnologies.com) | [inhancetechnologies.com](http://inhancetechnologies.com)