

# INVESTMENT CASTING

GRAINS & POWDERS

WASHINGTON MILLS



As one of the largest manufacturers of fused minerals and abrasive grains in the world, Washington Mills offers high-quality raw materials for the investment cast industry. Our technical expertise in manufacturing high-quality fused minerals ensures that you get the best raw materials for both your shell-building and parts-cleaning needs.

## FUSED MINERALS FOR SHELL BUILDING

Choosing the right fused minerals for your shell-building process is essential to the integrity of your shell. Washington Mills' fused mullite, white fused aluminum oxide and fused silica are lightweight, high-purity and high-strength materials that withstand very high temperatures throughout the firing and pouring process.

- DURAMUL® — fused mullite
- DURALUM® Special White — white fused aluminum oxide
- Fused Silica

## ABRASIVES FOR PARTS CLEANING

Washington Mills' brown and white fused aluminum oxide blasting abrasives give your cast part the perfect finish. BLASTITE® and DURALUM® Special White grains are carefully analyzed for lot-to-lot uniformity and closely inspected for grain characteristics to ensure that you get optimal performance in blasting your final part.

- BLASTITE® — brown fused aluminum oxide
- DURALUM® Special White — white fused aluminum oxide

Washington Mills has the knowledge and experience to expertly service your investment cast raw material needs. Contact us today to learn more about our products.

## SHELL BUILDING

Fused mullite, white fused aluminum oxide, fused silica

### FUSED MULLITE

#### **DURAMUL® – Fused mullite for investment cast shell building**

DURAMUL® is an optimal material for shell building. It is lightweight, high purity, high strength and thermal shock resistant. It is produced by the electric furnace fusion of Bayer-process alumina and high-purity silica. There is an excess of aluminum oxide in DURAMUL® above the normal mullite ratio ( $3 \text{ Al}_2\text{O}_3 : 2 \text{ SiO}_2$ ) to ensure that all of the  $\text{SiO}_2$  is contained within the mullite phase and is not present in the glass phase. DURAMUL® receives high-intensity magnetic treatment to remove virtually all of the magnetic iron present.

### WHITE FUSED ALUMINUM OXIDE

#### **DURALUM® Special White – Fused white aluminum oxide for investment cast shell building**

DURALUM® Special White is a virgin fused white aluminum oxide for investment cast shell building. It is a high-purity, medium-density material that is highly effective when used as a refractory coating.

### FUSED SILICA

#### **Fused silica for investment cast shell building**

Our fused silica is over 99% amorphous, and has an extremely low coefficient of thermal expansion and a high resistance to thermal shock. It is an excellent material for use in applications that require a consistent, high-purity product with low thermal expansion.

## PARTS CLEANING

Brown fused aluminum oxide, white fused aluminum oxide

### BROWN FUSED ALUMINUM OXIDE

#### **BLASTITE® – Brown aluminum oxide for investment cast parts cleaning**

BLASTITE® is an exceptionally tough, hard and productive brown aluminum oxide blasting abrasive. BLASTITE® cleans investment castings quickly and precisely.

### WHITE FUSED ALUMINUM OXIDE

#### **DURALUM® Special White – White aluminum oxide for investment cast parts cleaning**

DURALUM® Special White is a virgin fused white aluminum oxide that is used as a high-purity blasting abrasive to clean investment cast parts. It is the perfect blasting abrasive for cleaning applications where a high-purity material is required.

**Experience the expertise of Washington Mills. Contact us today for exceptional service and solutions for all your investment casting material requirements.**

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**WASHINGTON MILLS**