



# GRANUFLUX—FOUNDRY FLUXES

## GRANULATED ALUMINIUM DROSSING AND CLEANING FLUXES

Pyrotek Granuflux fluxes are normally added to aluminium melts to create dry and powdery dross, increase melt recovery, remove nonmetallic inclusions and reduce the dross's aluminium content.

These fluxes consist mostly of chlorides, heat generating compounds, and surface tension modifiers that allow for easy removal of aluminium oxide from the aluminium matrix.

Granuflux fluxes are sometimes used as cover agents to prevent further melt surface oxidation.

### BENEFITS

- Can be used at less than 50 percent of the rate of powder fluxes
- Reduced dust and fines emissions
- Specifically designed to meet most environmental regulatory agencies emissions limits
- 100 percent grain uniformity in flux chemistry
- Granular structure allows for shipping with no segregation of salt blends during transport or handling
- Spreads thoroughly over the bath surface and creates dry and powdery dross that is easy to skim
- Reduced melt loss
- Low application temperature, 650°C (1202°F)
- 1–5 mm (0.04–0.20 in) sieve grade supports flux injection

### AVAILABILITY

- 5 and 25 kg (11 and 55 lb) bags
- 1000 kg (2205 lb) pallets
- Additional sizes available on request

### USE INSTRUCTIONS—MANUAL APPLICATIONS

The typical Granuflux addition rate is from 0.8–1.2 kilograms (1.8–2.7 pounds) of flux per metric tonne of charge depending on the scrap's cleanliness and size, the amount of dross being treated, and local atmospheric conditions.

1. For manual applications, spread Granuflux drossing flux evenly over the surface of the dross.
2. Allow the flux to heat for three to four minutes, then stir the flux into the dross using a rake or proper mixing tool. Take care to not reintroduce molten metal into the dross.
3. When the dross is light and dry, carefully remove it with a coated skimming tool. Take care not to disturb the melt.

### USE INSTRUCTIONS—INJECTION APPLICATIONS

Consider the following when injecting Granuflux into the melt.

- Set the carrier gas pressure to ensure good dispersal, but take care not to disturb the vessel's surface
- Monitor the rotor speed when using a rotary injector. High speeds can create a metal/shaft interface vortex that reintroduces all the dross into the bath.

### STORAGE

- Store in the original container
- Keep the container tightly closed in a dry and well-ventilated place
- Unusual storage conditions (high temperatures or humidities, or rain) can reduce the product's life

**WARNING: Keep the product in the original sealed bag until use to avoid moisture absorption that may result in molten metal splashes.**

### HEALTH AND SAFETY

Prior to use, refer to the product safety data sheet for proper handling and required personal protective equipment.



## GRANUFLUX–FOUNDRY FLUXES

### FOUNDRY FLUXES

Product Name	Alloy Types and Features	Application Temperatures	Use Category	Applications
Granuflux DR6	<ul style="list-style-type: none"> <li>Sodium tolerant alloys</li> <li>Mild exothermic</li> </ul>	> 680°C (1256°F)	Drossing	<ul style="list-style-type: none"> <li>Crucibles</li> <li>Transport ladles</li> <li>Small reverberatory furnaces</li> </ul>
Granuflux DR212	<ul style="list-style-type: none"> <li>Sodium and calcium free</li> <li>Compatible with Strontium, Antimony and Phosphorus</li> </ul>	> 720°C (1328°F)	<ul style="list-style-type: none"> <li>Drossing</li> <li>Cleaning</li> </ul>	<ul style="list-style-type: none"> <li>Crucibles</li> <li>Transport ladles</li> <li>Small reverberatory furnaces</li> </ul>
Granuflux CL310	<ul style="list-style-type: none"> <li>Sodium tolerant alloys</li> </ul>	> 650–700°C (1202–1292°F)	<ul style="list-style-type: none"> <li>Drossing</li> <li>Cleaning</li> </ul>	<ul style="list-style-type: none"> <li>Crucibles</li> <li>Transport ladles</li> <li>Small reverberatory furnaces</li> </ul>
Granuflux DR6-M	<ul style="list-style-type: none"> <li>Sodium tolerant alloys</li> <li>Mild exothermic</li> </ul>	700–780°C (1292–1436°F)	<ul style="list-style-type: none"> <li>Drossing</li> <li>Cleaning</li> </ul>	<ul style="list-style-type: none"> <li>Large melting furnaces</li> <li>Holding furnaces</li> </ul>
Granuflux GR580/581	<ul style="list-style-type: none"> <li>Aluminium alloys; promotes fine equiaxed grain growth during solidification and excellent foundry die filling characteristics</li> </ul>	>700C (>1292°F)	Grain Refining	<ul style="list-style-type: none"> <li>Crucibles, furnaces and transfer ladles. Pyroflux GR GR580/581 are specifically designed and recommended for use with the Star E3500 technology; injection recommended.</li> </ul>

NOTE: Injectable Granuflux formulas can be used in many of the commercially available rotary degassing/flux injection systems available today.

