PYROTEK TREATMENT FLUXES

FOR ALUMINIUM CASTHOUSES

Supplying fluxes to the molten aluminium industry for over 30 years, Pyrotek services global casthouses from three major flux-production centers in Czechia, India, and China. Each facility uses state-of-the-art equipment and high-quality salt chemistries to produce treatment fluxes for a variety of molten metal treatment operations.

Pyrotek has capabilities to supply casthouses with powder, granulated, fused, and tableted fluxes, depending on the need or desired application.

Pyrotek's proprietary recipes are developed through careful laboratory analysis, production verification, and most importantly trials of recipes in both controlled and field environments. Recipe variety, consistent quality, proven packaging, and global availability makes Pyrotek your preferred partner for molten metal treatment fluxes.

BENEFITS

Molten metal treatment by flux can help facilitate one or more of the following process improvements:

- Lower inclusion counts (especially if injected)
- Removal of alkali impurities
- Removal of unwanted alloy constituents
- Lower metal content in dross (i.e., dry dross)
- Cover aluminium to prevent or reduce oxidation
- Maintain furnace cleanliness and operating volume
- Improve melt efficiency

PACKAGING AND AVAILABILITY

- Standard primary packaging for Pyrotek fluxes are 5 kilogram high-density polyethylene (HDPE) bags
- Flux bags are packaged 1,000 kilograms per pallet in either cardboard or a wooden box
- Customized packaging includes bagged increments as small as 500 grams, and up to 25 kilograms
- Customized secondary packaging options include: 1000 kilogram super sacks, 250 kilogram drums, and smaller pallet options.

Note: Packaging availability might depend on order location.

FLUX FORMS

Pyrotek offers a variety of flux forms which can be preferred or more suitable for certain applications.

- **Powder Fluxes** – generally the most economical form of flux, these are physical mixtures of salt
- **Granulated Fluxes** – Pre-mixed chemistries in 1-3 millimeter grains, suitable for injection
- **Fused Granular Fluxes** – fused 1-3 millimeter grains, most suitable for injection, with guaranteed low eutectic melt temperatures and chemistry
- **Tableted Fluxes** – for plunging and for added flux weight to penetrate thick or heavy dross layers

By using fluxes in granular form (1-3 millimeters) rather than as conventional powders, the effectiveness of the flux can be greatly increased, the handling improved and the undesirable, hazardous emissions can be significantly reduced.

Please work with your Pyrotek sales engineer to determine the flux most suitable for your aluminium application. *Pyrotek also offers fluxes for other molten metals, including: copper, zinc, lead, steel, cast iron, and others. Contact a local Pyrotek representative or inquire online at Pyrotek.com for more details.*

PRODUCT OPTIONS

The following aluminium foundry products (**table, next page**) can be offered from one or more of Pyrotek's three flux-production centers.

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Product Types: 127, 156

Application	Application Description	Applicable Product(s)	Product Form(s)
Inclusion Cleaning	Inclusion cleaning fluxes help to reduce non-metallic inclusions in the metal. To benefit from the best inclusion cleaning performance, products should be injected.	Pyroflux 1XX Series Pyroflux 2XX Series Pyroflux 3XX Series Pyroflux 2, 4, 5, 6 Promag NI, RI, SI* Promag Plus Coveral C, S, W Series* Granuflux Series	Powder, Granular Powder, Granular Powder, Granular Powder Fused Granules Fused Granules Powder Granular
Dross Drying	Dross drying fluxes reduce metal content in dross layers, freeing trapped metal and lowering interfacial tension at metal interfaces to allow coalescence of trapped metal.	Pyroflux 1XX Series Pyroflux 2XX Series Pyroflux 3XX Series Promag NF, SF, and RF* Promag Plus Granuflux Series	Powder, Granular Powder, Granular Powder, Granular Fused Granules Fused Granules Granular
Covering	Covering fluxes are usually not reactive, as they create an inert molten salt barrier between the molten metal surface and the air, preventing further oxidation of the metal.	Pyroflux 2, 4, 5, 6 Pyroflux 5051 Pyroflux CW-1 Coveral 11* Pyrocover 10	Powder Powder Powder Powder Powder
Alkali Removal	Alkali removal fluxes are intended to reduce or replace chlorine gas injection by effectively removing alkali and alkaline earth metals, including sodium (Na), lithium (Li), and calcium (Ca).	Promag NI, RI, SI* Promag NF, RF, SF* Promag Plus Pyroflux 2, 4, 5, 6	Fused Granules Fused Granules Fused Granules Powder
Chemistry Modification	Fluxes designed to modify chemistry can include those intended to add or remove alloy constituents such as magnesium and sodium.	Pyroflux GR GR580, GR 581 Pyroflux Kilmag Series Pyroflux GR M430, M460 Coveral 36A* Pyroflux 4AB Pyroflux MF02	Granular Powder Granular Powder Powder Powder, Granular
Chip Melting	Chip melting fluxes, also known as "wet fluxes," are added in relatively higher addition rates and are intended to prevent oxidation and maximize melt recovery for fine-gauge chip and scrap melting.	Pyroflux 5051, 6061, 7071 Pyroflux Rotal 17	Powder Powder
Wall Cleaning	Wall cleaning fluxes are chemically aggressive fluxes designed to remove buildup on furnace walls.	Pyroflux CW-1, CW-5, CW-F Zendox 7, 51* Coverall 11, 88*	Powder Powder Powder
Custom Recipes	Custom recipes, flux forms, and packaging can be considered for minimum order quantities of 500 kilograms, and annual consumption of at least 10,000 metric tonnes.		

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