

ECO - GRAIN REFINER (SALT BASED)

Plungeable grain refining agents for aluminium alloys

PRODUCT DATASHEET

GENERAL DESCRIPTION

ECO - GRAIN REFINER 2 range of products are available in tablet form and are used for grain refining of aluminium and its alloys.

PURPOSE

Normally, aluminium and its alloys solidify with coarse columnar and equiaxed crystals. Such a coarse grain structure poses problems like poor feeding characteristics, cracking during metal working and poor response to the surface treatment processes. ECO - GRAIN REFINER 2 is an excellent grain refiner.

In the case of hypereutectic aluminium-silicon alloys the primary silicon precipitates in coarse particles which tend to cluster. This leads to poor feeding characteristics and lower tensile strength and wear resistance properties. ECO - GRAIN REFINER 11 is used for grain refinement of such alloys

ECO - GRAIN REFINER addition into the metal before the casting operation overcomes these problems by producing fine equiaxed grains in the case of aluminium and its alloys.

SPECIFICATIONS

COLOUR :- ECO - GRAIN REFINER 2 WHITE

FORM :- TABLET

MOISTURE :- 0.05% MAX.

DENSITY :- 1.70-1.90 GMS / CC

COLOUR :- ECO - GRAIN REFINER 11 REDDISH BROWN

FORM :- TABLET

MOISTURE :- 0.05% MAX.

DENSITY :- 1.70-2.10 GMS / CC

INSTRUCTIONS FOR USE

- Melt under the cover of a suitable flux and bring the metal temperature to 730°C - 750°C for aluminium and its alloys. In case of hypereutectic Al-Si alloys, bring it to the desired temperature depending on the size of the casting.
- When the metal temperature is falling, plunge the recommended quantity (as per the application guide) of ECO - GRAIN REFINER right upto the bottom of the melt. Use a perforated and preheated bell plunger coated with refractory coating for plunging to prevent contamination of the melt with iron. In case of Al-Si hypereutectic alloy, degas the metal before treating with ECO - GRAIN REFINER 11 to knock off sodium in the metal.
- When the reaction ceases, degas the metal with the help of a suitable ECO - DEGASER* product, dross off and modify wherever required (in the case of hypereutectic and eutectic Al-Si alloys).

CUSTOMER BENEFITS:-

- Improves machanical properties.
- Improves feeding characteristics.
- Ensures freedom from cracking in rolled and forged products.
- Improves surface finish and response to anodising.

STANDARD PACKING

ECO - GRAIN REFINER is wrapped in poly lined aluminium foils packed in cardboard boxes.

SAFETY PRECAUTIONS

1. Store ECO - GRAIN REFINER products in a cool and dry place. Keep them properly covered.
2. Avoid inhalation of dust.
3. Use of protective gloves and nose napkins recommended.

* All information that is provided in this leaflet is to the best of our knowledge true & accurate. Any claim arising out of defective material will be limited to replacement.

The company accepts no liability for any consequential losses and damages.