

ECO - GRANULATED FLUX

PRODUCT DATASHEET

ECO-Granulated Flux is an environmentally friendly range of fluxes used for molten metal treatment of aluminium and aluminium alloys. Powder fluxes possess certain disadvantages such as dusting during application, toxic fume emissions. This causes health hazard to the workers and environmental problems. The powder fluxes also pose a problem of inconsistent efficiency due to the morphology of the powder. To overcome these disadvantages, dust free granulated fluxes have been developed.

APPLICATIONS OF ECO - GR FLUXES:

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|-------------------|--------------------------|-------------|
| 1. Grain Refining | 2. Sodium Modification | 3. Cleaning |
| 4. Drossing | 5. Element Removal. | 6. Covering |
| 7. Degassing | 8. Multi-purpose fluxes. | |

ADVANTAGES:

- | | | |
|---------------------------------------|--|-------------------|
| 1. No Dust | 2. Lower addition rates | 3. Easily applied |
| 4. Low fumes | 5. Suitable for all alloy types | |
| 6. Suitable for all types of Furnaces | 7. Less Health Hazardous compared to powder fluxes | |

Effect of Grain Refining:

1. In-situ formation of Nuclei such as TiB_2 , in the melt
2. In-Situ nuclei are very active, effective and well distributed throughout the melt.
3. Fine grain structure improves the solidified structure and reduces shrinkage porosity.
4. Grain Refining improves mechanical properties of the casting, such as elongation.

Effect of Modification:

1. Sodium is the most effective modification agent.
2. Improvement in hot tear resistance
3. Improvement in feeding
4. Reduction in Shrinkage porosity
5. Sodium modified melts have a lower hydrogen pickup compared to strontium modified melts.

Effects of Cleaning , Drossing and Covering:

1. Cleaning Flux helps in removal of Oxides and Non-Metallic Inclusions.
2. Improvement of Mechanical properties.
3. Drossing fluxes provide a dry dross with a low metal content
4. Covering flux protects the melt against oxidation and hydrogen pick up.

Multipurpose Flux:

1. Increases the extrusion speed and die life when extruding profiles
2. Reduces the number of breaks in continuous casting
3. Eliminates edge cracks when rolling high Mg aluminium alloys
4. Free of fluorides. Zero fluoride emissions.
5. Non-hazardous compound
6. Low melting point for rapid dispersion (<766°F, 480°C)
7. Less hygroscopic than magnesium
8. Reduces the amount of Cl₂ / N₂ for degassing
9. Helps in removal of Alkali metals like Na, Ca and Mg.
10. Extremely dry dross while cleaning and covering of molten metal.

APPLICATION RATE:

0.2-0.4% is the standard range for all Granulated Fluxes. Unless specified.

PACKING:

25 KG HDPE Lined bags

Any Special Custom Make Packing as per customer requirement.

PRECAUTIONS:

1. Store in Cool and dry place.
2. Shelf Life 1 year.
3. Do not store any material on top of this product.

RECOMMENDATION:

SR.	ECO- GR FLUX	APPLICATION	ADDITION RATE	APPLICATION
1	ECO - GR 111 (F)	COVERING + DROSSING + CLEANING	0.2-0.4%	ALL
2	ECO - GR 111 (NF)	COVERING + DROSSING + CLEANING	0.2-0.4%	ALL
3	ECO - GR 222 (F)	MODIFICATION	0.1-0.2%	>740DEGREE TEMPERATURE
4	ECO - GR 222 (NF)	MODIFICATION	0.1-0.2%	>740DEGREE TEMPERATURE
5	ECO - GR 333	GRAIN REFINING	0.2-0.4%	ALL
6	ECO - GR 444	CA + NA REMOVAL	0.2-0.4%	ALL
7	ECO - GR 555	MAGNESIUM REMOVAL	1% - 4%	ALL
8	ECO - GR 666	SODIUM FREE	0.2-0.4%	ALL
9	ECO - GR 777	MULTI PURPOSE	0.2-0.4%	ALL