

Hot Topping Compounds



Joy Mark Hot Toppings feature a unique combination of insulating and exothermic characteristics for improved feeding of castings. They are available for both ferrous and non-ferrous applications. Foundries are able to reduce production costs due to the topping compounds ability to:

- Reduce riser heat loss to atmosphere
- Maintain open riser to assure continued feeding
- Reduce piping in risers
- Assure integrity of the casting
- Increase metal yield
- Easy to apply

Joy-Mark Hot Topping Compounds may be selected based on the following properties:

HOT TOPPING PROPERTIES	NF-31	NF-31EH	IX-20	IX-24	IX-44	IX-46
Metal Application	Non-Ferrous	Non-Ferrous	Iron and Steel	Iron and Steel	Iron and Steel	Iron and Steel
Expandable	No	No	Yes	Yes	Yes	Yes
Sensitivity of Reaction	Rapid	Rapid	Slow	Slow	Rapid	Moderate
Type of Ash	Firm Crust	Firm Crust	Soft Crust	Soft Crust	Soft Crust	Soft Crust
Heat Output	Moderate	High	Moderate	Moderate	Very High	Moderate
Insulation	Moderate	Moderate	High	High	High	Very High
Fume	Moderate	Moderate	Low	Low	Low	Low
Bulk Density	High	High	Moderate	Moderate	Low	High

Guidelines for use of Joy-Mark Hot Topping Compounds:

1. For non-expanding exothermic toppings, the applied thickness should be equal to:
 - a) One half inch for risers with a diameter of five inches or less
 - b) Ten percent of the riser diameter for risers with a diameter greater than five inches
2. For expanding exothermic toppings, the applied initial thickness of the layer should be equal to four percent of the riser diameter. The topping should then expand to a thickness of ten percent of the riser diameter.
3. For risers with a diameter of three inches or less, an expanding exothermic topping should not be used. Instead, a faster burning, hotter, non-expanding material should be used.

