

#### PRODUCT DATA SHEET

# **CERALOY TiB (5:1)**

## **General Description**

**CERALOY TiB(5:1)** is a grain refiner for Al-Si hypo-eutectic and eutectic alloys, it is available in compositions 5:1 i.e 5% titanium and 1% boron. CERALOY TiB(5:1) is recommended for grain refining aluminium alloys.

#### **Purpose**

Generally aluminium and its alloys solidify in heterogeneous manner to give coarse dendritic structure. Coarse grain structure imposes problems like poor mechanical properties, poor feeding characteristics, and gives poor response to surface and heat treatment processes

**CERALOY-TiB(5:1)** is recommended to overcome many of the above problems. Being metallic in nature, **CERALOY-TiB(5:1)** dissolves readily in molten aluminium alloys and thus gives more consistent results as compared to salt-based grain refiners. It has superior fade resistance and hence retains the refinement effect over a much longer period of time. Use of **CERALOY-TiB(5:1)** is far more environment friendly than the conventional salt based refiners. Since no chemical reaction is involved, crucible life can be improved.

## **Advantages**

CASTING WITH IMPROVED AND CONSISTENT MECHANICAL AND METALLURGICAL PROPERTIES: - CERALOY improves as —cast mechanical properties such as tensile Strength and elongation. The longer modification effect gives consistent metallurgical and mechanical properties of the castings.

BETTER MACHINABILITY: - The refined metallurgical structure and improved distribution of silicon phase gives better machinability and improved surface texture.

ENVIRONMENTAL CLEANLINESS: - Use of CERALOY gives cleaner working environment since no chemical reaction is involved.

## Instructions for use

Prepare the desired alloy composition. Follow the normal fluxing and cleansing procedure recommended by using suitable flux from CERAFLUX range. Degas the melt with degassing tablet by using suitable grade from CERAFLUX range and dross off using small quantity of CERAFLUX-11. After the degassing operation, add CERALOY-TiB(5:1) and rabble it to ensure homogeneity of the composition.

Application Rate: - 0.2-0.3% of CERALOY –TiB(5:1)



## **PRODUCT DATA SHEET**

<u>Packing</u>: - CERALOY-TiB(5:1) is available in 20 Kg G.bag. Each cast waffle weights approx.200gms and 9.5mm rod approx.100gms

<u>Note</u>: Addition level can vary depending on the casting process, alloy composition, section thickness and solidification rate of the casting. Wait for minimum 5 to 10 minutes for grain refining effect to take place.