

# OPTIFINE™

## OPTIMUM AND POWERFUL GRAIN REFINEMENT IS A HUGE ASSET IN ADVANCING MELT QUALITY.

**OPTIFINE™** is a new high efficiency, clean grain refiner based on the 3/1 titanium/boron system and supplied in standard rod form.

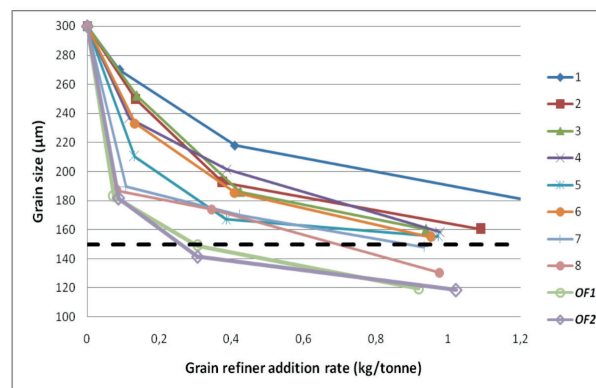
**OPTIFINE™** has been developed using MQP's in depth knowledge of grain refinement gained through the introduction and operation of the Opticast System worldwide.

**OPTIFINE™** is produced exclusively for MQP by our partners STNM, a leading grain refiner and master alloy manufacturer, to an exacting specification.

### Proven benefits:

- High efficiency grain refining performance enables **consumption to be cut by up 80%** with addition rates as low as 150g/t being achieved in production usage.
- Lowering consumption reduces the amount of  $TiB_2$  agglomerates and oxide stringers introduced into the finished product improving quality.
- Highly consistent performance eliminates incidence of cracking.
- Cost for grain refiner significantly reduced.
- Transport, handling and storage costs reduced.

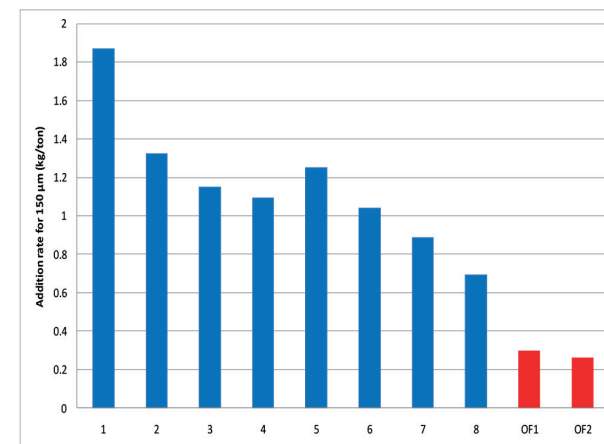
Grain refinement curves for standard grain refiners showing wide variation.



Grain refinement curves 1-8 show typical spread of efficiencies seen in coils provided by one supplier. Curves OF-1 and OF-2 for Optifine show high efficiency and consistent performance.

MQP is dedicated to improving melt quality of aluminium and whilst at the same time reducing costs. Through constant development and benchmarking of our products, we are able to raise product efficiency and reduce costs. Our products can be supplied worldwide direct, or through one of our appointed agents.

Necessary additions to obtain 150 µm target grain size.



The chart shows that the amount of Optifine required to be added to achieve the required grain size of 150 µm is reduced by 80% of standard addition.