

# THERMAL ANALYSIS CUP (QUIK CUP)



Thermal analysis cup (also known as CE cup, carbon cup, pouring cup, etc.) is composed of a reasonably designed sample cup body, high precision thermocouple composition. Thermal analysis is widely used in the field control of molten iron composition because of its fast, simple, reliable and low cost. When molten iron is poured into the sample cup, the molten iron gradually solidifies with time. Thermal analysis is based on the temperature platform of its cold cooling curve to determine and calculate CEL, C, Si and other components.

## 概要

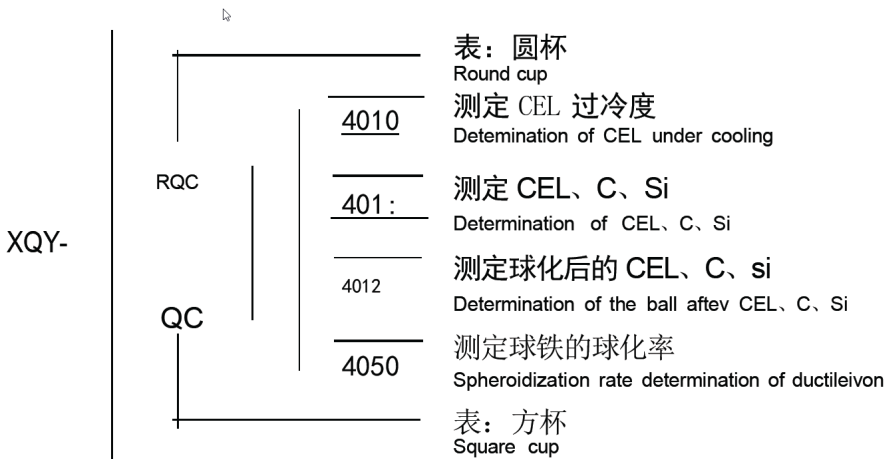
热分析样杯(又称 CE 杯、定碳杯、浇样杯等等)是由设计合理的样杯体,高精度的热电偶组成。热分析因其快速、简便、可靠和低成本而广泛用于铁水成份现场控制,当铁水倒入样杯后,铁水随时间而逐渐凝固,热分析就根据其冷却曲线的温度平台,测定并计算出 CEL, C, Si 等成分。

## Working principle 原理

Because the iron in solidification process of phase change to release latent heat of crystallization, cooling curve change. The thermal analysis method is to use the heat effect, through the cooling curve of liquidus temperature and eutectic temperature determination of solidification process, summed up a method for the analysis of iron carbon equivalent, carbon content, silicon content and characteristics of the computer.

由于铸铁在冷却凝固过程中发生相变释放出结晶潜热,冷却曲线发生变化。热分析法就是利用这——热效应,通过测定凝固过程中冷却曲线初晶温度和共晶温度点,用计算机归纳分析铸铁的碳当量、碳量、硅量以及相关特性的一种方法。

## Note to the model and function 型号及功能说明



## Main technical parameters 主要技术参数

测温范围 The measuring range	碳当量 Carbon equivalent	碳含量 Carbon content	硅含量 Silicon content	测试时间 Test time
1250C~1370° C	(2.2~5.0) ±0.05%	(2.2~4.8) +0.05%	0.2~4.5) ±0.1%	60s