WH-1500 耐火水泥
使用说明

WH-1500 Refractory Cement
Handling Instructions

第一步：准备工作

两种水泥组分的外观：

WH-1500 Part A 组分是一种松散粉末，WH-1500 Part B 组分是一种低粘度的液体。如果这两种组分的任意一种的外观发生了变化（比如由于超过了最佳使用期限或者保存在不正确的储存条件下），这可能预示着达不到其最佳性能。

接触面的准备：

为了达到最佳的粘结效果，所有的油腻、油性、灰尘和其他任何残留物都要从两个待连接的部件的接触表面完全去除。要达到此效果，可以使用高挥发性有机溶剂，比如丙酮，如果有需要，可以结合机械性的表面处理，比如擦拭。根据接触面污染的不同，陶瓷件可能需要另外进行热处理，温度大约是1000°C。

Step 1: Getting Prepared

Visual Appearance of the Two Glue Components:
WH-1500 Part A component typically comes as a loose powder, whilst WH-1500 Part B component is a low viscosity liquid. If one or the other should show a different appearance (e.g., due to exceeding the "best-before" date or due to keeping under inappropriate storage conditions), this may be an indicator that the typical performance of the glue may be impaired.

Preparation of the Surfaces:
In order to achieve the optimum gluing result, all kinds of fatty, oily, dusty, and any other residues need to be completely removed from the surface areas of the two joining parts. This may be achieved by using highly volatile organic solvents, such as acetone, if necessary, in combination with a mechanic surface treatment, e.g. brushing. Depending on the kind of surface contamination, ceramics parts may additionally be subjected to a thermal treatment at a temperature of approx. 1,000°C.

第二步：粘接

两个水泥组分的混合：
两个组分 WH-1500 Part A 和 WH-1500 Part B 的混合应该根据一致性的原则进行。下列表格显示在不同的应用下两个组分的典型的混合比例。一般来说，施工时间（水泥硬化的时间）在 10-40 分钟。

两种水泥组分的比例 Part A : Part B	典型应用
1.2 : 1	两个部件之间粘接 间隙小 坚实且有孔的材料 两种不同的材料（陶瓷/金属） 长的施工时间 (延缓硬化时间)
2.4 : 1	两个部件之间粘接间隙大 有孔材料 短的施工时间 (快速硬化)
在混合 WH-1500 耐火水泥或者用其施工的时候，安全是第一要务。为此，我们建议至少穿戴安全眼镜和手套。关于您个人安全的更多信息请参考这两种组分的安全数据表。	

粘接和硬化：
在要粘接的两个部件的表面区域涂一层 WH-1500 的薄层。如果部件是有孔材料，先在其表面上涂一层 WH-1500 Part B 组分可以减少有孔材料的表面吸收水泥的行为。

WH-1500 是一种水硬性胶黏剂。根据两个部件之间的间隙大小，室温下水泥会在 24-48 小时干燥。两个部件的间隙应该在 0.3-1.5mm 之间， 把它们放在 50-100°C 下再进行热处理操作可以使两个部件完全干燥。

两种水泥组分混合的时候，如果 WH-1500 Part A 的含量高一些，在空气气氛下 1200-1500°C 进行热处理可以增强粘接的机械强度。

评论：
当粘接金属的时候，比如铝，锡，锌和铜等，金属表面会发生钝化现象。

Step 2: Joining

Mixing of the two Components:
Mixing of the two constituent components, WH-1500 Part A and WH-1500 Part B, shall be conducted according to the consistency required for the application ahead. The following table shows typical mixing ratios for various applications. Common working (hardening) times are in the range of 10 – 40 minutes.

Ratio of the two cement components Part A : Part B	***Typical areas of application***
1.2 : 1	*Small joining gaps between the two parts* *Dense as well as porous materials* *Various materials (ceramics/metals)* *Long working time (retarded hardening)*
2.4 : 1	*Large joining gap between the two parts* *Porous Materials* *Short working time (fast hardening)*
When mixing or working with WH-1500 refractory cement, working safe is of paramount importance. To this end, we recommend the use of at least safety glasses and gloves. For further information for your personal safety please refer to our safety data sheets for the two components.	

Joining and Hardening:
Apply a thin layer of WH-1500 on each of the surface areas of the two parts to be joined. In the case of porous materials, applying a primary layer of WH-1500 Part B component onto the surface may reduce the uptake behavior of the surfaces.

WH-1500 has a hydraulic binding behavior. Depending on the joining gap between the two parts, the cement should be dried for 24 – 48 hours at room temperature. Gaps between two parts typically ought to be in the range of between 0.3 – 1.5 mm. Complete drying of the parts is obtained by subjecting them to an additional heat treatment at 50 – 100 °C.

In a mix of the two components with a higher content of WH-1500 Part A, heat treatment at 1,200 to 1,500 °C in air will help enhance the mechanic strength of the joint.

Remark:
When metals such as aluminium, tin, zink, and copper, are joined a passivation of the metal surface takes place.