

Of the total heat input during a normal firing cycle, the kiln car base will consume some 15%-50% of this energy. The present system of using insulating bricks to construct the perimeter of the kiln cars is prone to cracking and deformation, which in turn leads to a poor seal between the cars and kiln seals as well as between the cars themselves. This at worst can lead to heat transfer to the steel structure, and particularly to the bearings, causing in turn deformation or seizure.

We at Trend have developed a perimeter block system designed to eliminate all of the above-mentioned problems. By employing the latest designs in kiln structures and kiln car systems, significant energy savings can be achieved.

The extruded hollow blocks fit together to form the perfect shaped kiln car perimeter, not only improving the seal, but also reducing the refractory weight of the car. This has the significant energy saving effect mentioned earlier. In addition the service life of the car is greatly increased when compared to the insulating brick structure, and is practically maintenance free.

This system is suitable either for any new installation, or for the refurbishing of an existing system.

窑车基座所消耗的热量一般占陶瓷制品烧成能耗的15%—50%。同时，目前普遍采用的以轻质耐火砖为窑车基座围砖的结构存在易松动、开裂、剥落等严重问题，造成窑车与窑车、窑车与窑墙之间的密封性差，热量易传至窑车底部，不但浪费燃料，并且易造成窑车钢结构变形、轴承损坏等多种缺陷。

创导公司设计开发出两种类型的窑车基座系统，可以完全解决目前窑车基座所存在的问题。一种是采用堇青石-莫来石中空边围砖系统，可以大大减轻窑车重量，延长使用寿命，长期使用，几乎无需维修，不但适用于新建窑炉，而且也适用于老窑改造。另一种是采用北京创导特别研制的窑车专用高抗热震轻质砖，用于代替普通轻质砖，使用寿命延长3倍以上。



Kiln Car Base with Insulating Brick 轻质耐火砖窑车基座



Kiln Car Base with Refractory Castable 耐火浇注料窑车基座

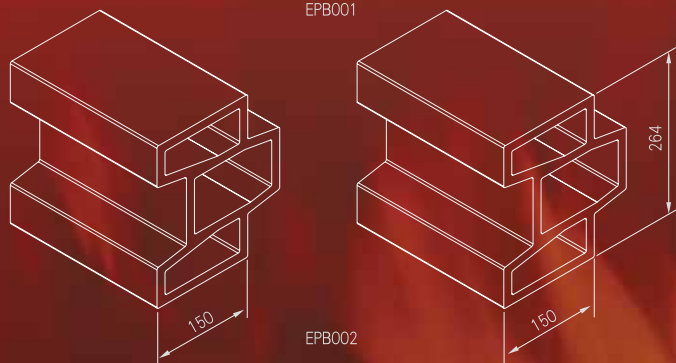


Kiln Car Base with Ceramic Fibre 全纤维窑车基座

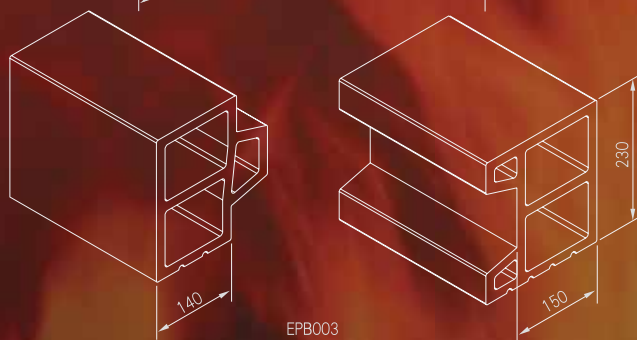

Detailed Boundary Between Kiln Cars
前后窑车边围砖之间的曲封详图



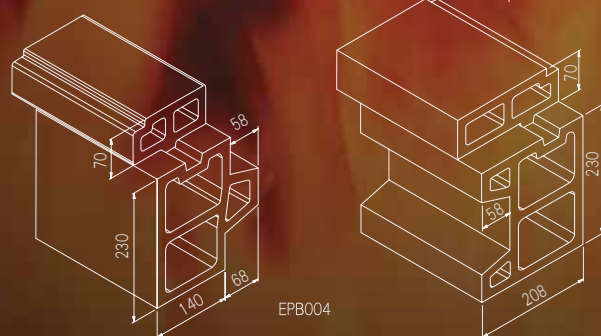
EPB001



EPB002



EPB003



EPB004

Extruded Perimeter Blocks 中空边围砖
窑具代码 Code: EPB





Our special developed insulating bricks for kiln car bases are characterized as lower thermal expansion and high thermal shock resistance. The life of kiln car base can be prolonged significantly by using these bricks to replace the normal insulating bricks and the maintenance cost can be saved accordingly.

These high thermal shock insulating material can be manufactured either to bricks with standard dimensions, which need mortar for brickwork, or to dry-lock bricks, which are mortar free for brickwork.

创导公司特别为窑车开发的轻质砖具有膨胀系数低、耐急冷急热性能优异的特点，完全替代普通轻质砖用于窑车基座围砖可以大幅度延长窑车寿命（三倍以上），防止热量散失，降低能耗，同时大大节省窑车维修费用。

这种高热震轻质材料既可以做成标准砖尺寸，用相应的低膨胀耐火泥浆砌筑；又可以成型为具有互扣式表面结构的干码砖，砌筑时不需使用耐火泥浆粘结。

High TSR Insulating Bricks for Kiln Car Base
窑车专用高抗热震轻质砖

Properties 性能指标	Units 单位	Materials 材料牌号	
		GOY	GOZ
Bulk Density 体积密度	g/cm ³	1.00	1.25
Crushing Strength 耐压强度	Mpa	7.0	12.0
M.O.R. @ 20°C 常温抗折强度	Mpa	3.0	4.0
Reheating Shrinking @1250°C × 12h 重烧线变化	%	+0.09	+0.05
C.T.E. @20-1000°C 膨胀系数	10 ⁻⁴ K ⁻¹	3.1	3.2
Thermal Conductivity 导热系数	600°C	W/m · K	0.32
	800°C		0.38
	1000°C		0.44