

## Why ultra-light kiln furniture system / 超轻窑具系统的优势

Fuel saving - Generally reduce 50% heat waste in kiln slabs / 节能 - 棚板窑具消耗通常降低50% Ultra thinner - Improve loading space & efficiency / 超薄 - 增大装载空间及效率 Flatness maintaining - Reduce warpage in wares / 抗变形 - 减少产品底部变形 Durable - Anti-oxidization, anti-corrosion / 耐用 - 耐氧化、耐腐蚀 Faster - Reduce firing cycle with good thermal shock resistance / 快烧 - 缩短烧成周期 Ultra ligther - Reduce manpower / 超轻 - 减少装卸劳动强度

# Material properties of PERFORMER-N / 英泰克PERFORMER-N性能参数

The INTEC Performer-N improve the ratio between kiln furniture and products to be fired, consequently favor accelerated heat transfer into the product, with the result of a significant decrease of energy consumption during the firing process. The high thermal conductivities and thermal shock resistance allow faster firing cycles and extreme thin wall products to be achieved. The great chemical stabilities and anti-oxidized abilities improve the durability under high corrosion application.

借助于英泰克PERFORMER-N的优异力学性能,可以大幅度降低窑具与烧成产品的重量及空间比,提高窑炉内部的热量使用率及装载效率,从而大幅度降低烧成能耗,良好的抗化学侵蚀能力及抗热震性,高导热系数,以及抗氧化性,从而提高其制品在高温烧成或热处理过程中的耐久性,并且提高烧成制品尤其薄壁产品的成品率。

Material Properties 材料性能	Unit 单位	Data 检测值
SiC + Si₃N₄ + additives 碳化硅+氮化硅+助烧剂	%	> 99
Free silicon + SiO2 游离硅+石英	%	<1
Bulk density 体积密度	g / cm <sup>3</sup>	2.75-2.85
Open porosity (Oxidized) 显气孔率(氧化后)	%	<=3.0
Rapture strength @ 20℃ 常温抗折强度	MPa	150 - 180
Rapture strength @ 1200℃ 高温抗折强度	MPa	150 - 190
Thermal conductivity 导热系数	w / m.k	20
Coefficient of thermal expansion 热膨胀系数(30-1200℃)	a x 10 <sup>6</sup> / ℃	4.6
Creep deformation resistance 高温抗蠕变		****
Maximum using temperature 最高使用温度	°C	1500
Batt thickness for technical ceramics 技术陶瓷承烧板厚度	mm	3 - 10

The data above are from third party's testing, the chemical composition was not fully published for confidential reason 以上产品性能数据由第三方实验室检测,成份由于保密原因未公布细节。

### Full range ultra-light kiln furniture products / 全系列超标题

INTEC is providing a full range PERFORMER-N ultrathin slab, support, rollers and beam for setting up the main structure of the Ultra-light kiln furniture system, and various shapes setters, saggars, and large-size batts up to 600 x 1,500 mm.

英泰克提供搭建超轻窑车所需要的全系列超薄棚板、支柱、辊棒、横梁、以及各种定制承纬板、匣钵以及超大棚板(最大尺寸可达600x1,500 mm)。

### Tailor made kiln furniture system / 订制超轻窑具系统

In addition to the high quality individual product, INTEC team is capable to discuss and provide tailor made engineering design according to individual condition, it will optimize the kiln furniture system to suit certain technical requirement, i.e. fuel saving, maximum loading etc.

除提供高品质产品外,英泰克及其团队可以根据客户的具体窑炉及工装情况提供全方位的窑具布置及技术解决方案,从而优化窑炉装载,进一步节能。





#### Where and products to be used / 应用领域

Catalytic converters / 催化转换器 High voltage insulator / 高压电瓷 Abrasives & grinding media / 砂轮及瓷球 Powders / 粉末煅烧 Disel particle filters (DPF) / 柴油颗粒过滤器 Electronic component / 电子陶瓷元器件 Industrial furnaces / 工业炉 Powder metallurgy / 粉末冶金