

## HDPIR 高密度聚异氰脲酸酯管托/垫块 High Density Polyisocyanurate Pipe Support/Block

### 1. 产品介绍 Product Introduction

振申保冷管托可以承受管系带来的各种载荷，同时作为管道保冷的一部分。

ZES cold insulation pipe support/block belongs to pipe insulation system, can bear loads from pipe/equipment.

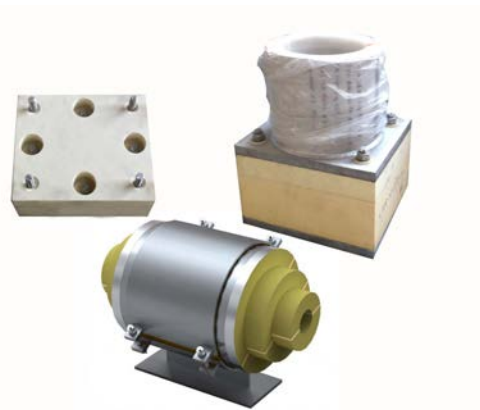
振申保冷管托系统主要包含以下几部分：

Types of ZES cold insulation pipe support/block are:

- ❖ 滑动保冷管托 Sliding support
- ❖ 导向保冷管托（包括垂直管道导向管托） Guide Support（including guide support for vertical pipe）
- ❖ 限位/固定保冷管托 Limit/fixing support
- ❖ 垫块系统 Insulation block

### 2. 产品性能及技术指标 Properties

保冷材料是保冷管托中最重要的部件,振申保冷管托的保冷材料使用高密度聚异氰脲酸酯（HDPIR）。高密度聚异氰脲酸酯系由异氰酸盐与聚醚为主原料，再加上发泡剂、触媒和防火剂，经高速搅拌混合反应生成的具有塑胶、橡胶和软木特性的发泡聚合体。泡体是由成千上万极微小均匀的独立细胞组成，成立体蜂窝式的结构。其密度高、热传导率低、吸水率低，质地优于木材。



The performance of cold insulation pipe support/block depends on the properties of HDPIR. HDPIR is a kind of foaming polymer, with the features of plastic, rubber and cork. The raw materials are isocyanate, polyether, foaming agent, catalyst, flame retardant, etc. After high speed stirring, materials react and foam to cellular structure product, composed of millions of tiny and uniform sealed cells. It provide benefits of low density, low thermal conductivity, low water absorption. The performance is better than timber.

性能 Property (测试方法 Testing Method)	单位 Unit	技术指标 Technical Data					
密度 Density (ASTM D1622)	kg/m <sup>3</sup>	160	224	320	400	500	550
导热系数(常温) Thermal Conductivity at Ambient Temp. (ASTM C177, C518)	W/(m·K)	≤0.032	≤0.040	≤0.050	≤0.058	≤0.075	≤0.085
抗压强度 (常温) Compressive Strength at Ambient Temperature	MPa	≥2.0	≥4.0	≥7.0	≥12.0	≥18.0	≥22.0
吸水率 Water Absorption (ASTM D2842)	g/100cm <sup>2</sup>	≤2.0	≤2.0	≤2.0	≤1.5	≤1.5	≤1.5
闭孔率 Closed Cell Ratio (ASTM D2856)	%	≥95					
线膨胀系数 Linear Expansion Coefficient (-165~20℃)	1/K	≤65×10 <sup>-6</sup>					
使用温度 Service Temp.	℃	-196~+110					

注: 跟上述检测方法等效的其它方法同样适用。

Note: Other equivalent codes to above mentioned testing methods are applicable as well.