



Hanger and Support Rods Type HR

General Information

ZIRCAR Ceramics' Hanger and Support Rods are high-density ceramic components used to structurally support rigid ceramic-fiber-based thermal insulation in low-mass furnaces operating to temperatures of 1800°C (3292°F). Together they form a strong-creep-resistant reinforcing skeleton which fixes and supports the insulation layers throughout a furnace. The Accessories Map on Page 2 shows how HR Rods are integrated into an insulation lining. Type HR components include:

HR-1 Hanger Rods are 0.5"-diameter x 5.5"-long solid alumina rods with slots machined to accept a Hanger Clip Type HC. HR-1 rods are typically used as part of a roof suspension system.

HR-2 Hanger Rods are 0.5"-diameter x 5.5"-long solid alumina rods with a through-hole machined to accept 0.25"-diameter HR-3 Support Rods. In a typical installation HR-2 rods are used to support the insulation in furnace walls.

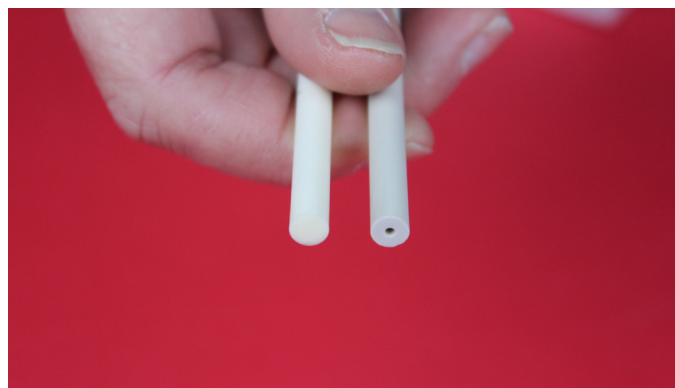
HR-1 and HR-2 Hanger Rods are normally installed through furnace insulation up to 4in. thick. Protruding through the furnace shell, they are secured on the outside with a Shaft Collar Type SC-1.

HR-3A Support Rods are 0.25"-diameter, solid alumina rods for use in conjunction with Hanger Rods Type HR-2 or as individual supports imbedded within an insulation panel. Ultra-high purity makes HR-3A suitable in corrosive environments and in 1800°C(3292°F) insulation systems.

HR-3M Support Rods are 0.25"-diameter high-density tubes of mullite composition. This 80% Al_2O_3 / 20% SiO_2 body provides exceptional strength in most applications.



Hanger Rods: HR-1 (left) & HR-2 (right).



Support Rods: HR-3A(left) & HR-3M (right).

Characteristics & Properties

Type	HR-1, HR-2 & HR-3A	HR-3M
Composition, %		
Al_2O_3	99.9+	80
SiO_2	-	20
Density, g/cc (pcf)	4 (250)	2.6 (162)
Form	Rod	Tube

The data presented herein is intended to help the user to determine the appropriateness of this material for their application. This data is a nominal representation of this product's properties and characteristics and therefore should not be used in preparing specifications.

Suggested Applications

Suspension system for fibrous ceramic insulation in furnaces operating to 1800°C (3292°F).

Imbedded reinforcement within fibrous ceramic insulation panels.

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Technical Data Bulletin

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www.zircarceramics.com

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Availability of Standard Rods

ITEM #	DESCRIPTION
D9101	HR-1, HANGER ROD
D9102	HR-2, HANGER ROD
D9107	HR-3M, 1/4"OD x 48"L
D9108	HR-3A, 1/4"OD x 36"L

To Order

Standard Rods: order online or specify quantity, item # and description.

Standard items are available for immediate shipment from stock.

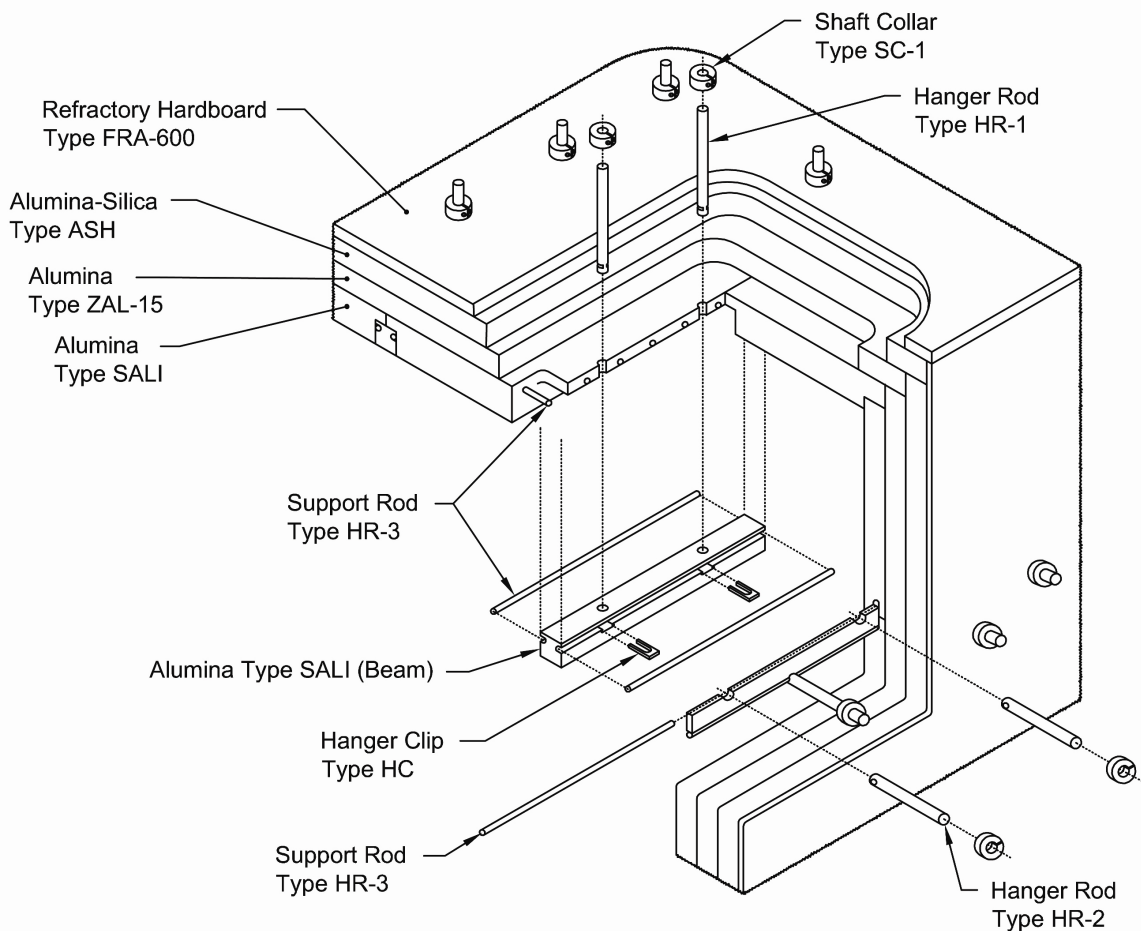
Custom Rods

HR-1 & HR-2 Hanger rods are available in custom lengths up to 24"

HR-3M Support Rods are available in custom lengths up to 60"

HR-3A Support Rods are available in custom lengths up to 36"

Furnace Accessory Map of ZIRCAR Ceramics' FIM (Furnace Insulation Module) Hanger System.



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