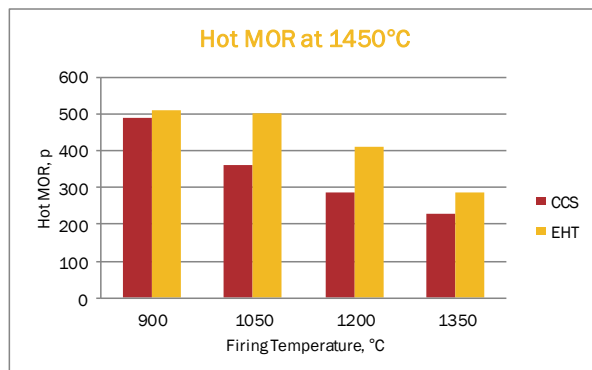


EHT Binder

EHT binder is a polymer-free, water-based colloidal silica sol backup binder, specially manufactured for use in high temperature aerospace applications; providing casters with:

- **High Hot Strength**
Regardless of firing temperature, EHT binder exhibits high hot strength when compared to conventional colloidal silica. An independent testing laboratory* confirmed EHT binder's superior hot strength property when compared to other commercially available binders, ranking EHT binder #1 for hot strength properties in their group testing.
- **Excellent Green Strength and Edge Strength**
EHT binder outperformed other products in independent testing, demonstrating better flat bar (3 point bending test) and edge strength results.
- **Excellent Creep Resistance Properties**
EHT binder showed excellent creep resistance properties when compared to conventional colloidal silica, regardless of testing or firing temperature.
- **A Polymer-Free Binder**



Due to its shell strength characteristics, EHT binder is an excellent choice for foundries that put shells through adverse temperature applications. EHT binder works well at foundries that pre-fire shells, allow them to cool and then reheat them to cast at 1832 °F (1000 °C) or higher. EHT binder is also proven in directional solidification and single crystal casting applications.

PRODUCT DATA SHEET



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EHT Binder

Typical Material Properties**

Binder Specific Gravity	1.262-1.276
Total Binder Solids	37.5%-38.5%
Binder pH	10.0-11.0
Na ₂ O Content	<0.50%
Surface Charge	Negative
Defoam	<20 seconds

*R&R and independent laboratory testing results are detailed in *The Development and Application of a Specialty Colloidal Silica Sol for High Temperature Applications*, presented at the 54th Annual Technical Conference of the Investment Casting Institute.

**These results are based on the testing methods, frequency and procedures of Ransom & Randolph or its approved suppliers. The levels referenced herein are only for general guidance and do not constitute a firm specification.

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