

## Modified HE Cellulose

### Specification Sheet

**Description:** Especially modified, nonionic, water-soluble polymer made by reacting ethylene oxide with alkali-cellulose. HR-CS grade (H stands for 'High Molecular Weight', R stands for 'Retarded Hydration Treated' and CS for 'Cosmetic Grade'). Light tan powder, odorless. Soluble in cold or hot water, gives crystal clear solutions of varying viscosity. Typical viscosity in 1% solutions is 1,500 - 2,500 cps. Average molecular weight is 250,000. Also soluble in up to 60% ethanol. Stable in wide ph range of 3-10. pH Value: 2% solution (pH 6-8.5).

**CAS:** 9004-62-0

**INCI Name:** Hydroxyethylcellulose

**Benefits:**

- Effective thickener of emulsions, surfactants systems, and gels
- Often used as foam stabilizer and anti-caking agent (prevents lump formation)

**Use:** Add as is to formulas, typical final use level 0.5-3%. For external use only.

**Applications:** Shampoos, conditioners, lotions, creams, body washes, shower gels.

**Country of Origin:** The Netherlands

**Raw material source:** Cotton fibers

**Manufacture:** Hydroxyethylcellulose is produced by alkalization and hydroxyethylation of cellulose fibers in liquid methyl chloride.

**Animal Testing:** Not animal tested

**GMO:** GMO-free but not certified

**Vegan:** Does not contain animal-derived components