



CELLOSIZETM HEC QP-4400H Europe PCG Thickener

Nonionic, bio-based and biodegradable water-soluble rheology modifiers that can thicken, suspend, emulsify and enhance the sensory experience for hair and skin care applications.

INCI NAME: Hydroxyethyl Cellulose

Features & Benefits

- 60% bio-based carbon weight
- Non-GMO wood PEF certified
- Easy to handle powder form
- Highly efficient thickener
- Compatible with a wide range of surfactants
- Excellent salt / electrolytes tolerance
- Improve emulsion stability
- High degree of solution clarity
- Inherent, primary biodegradability

Applications

Areas of potential use for CELLOSIZETM HEC QP-4400H Europe PCG Thickener encompass a wide range of cosmetic and toiletry applications such as:

- Hair care
- Skin care
- Color cosmetics

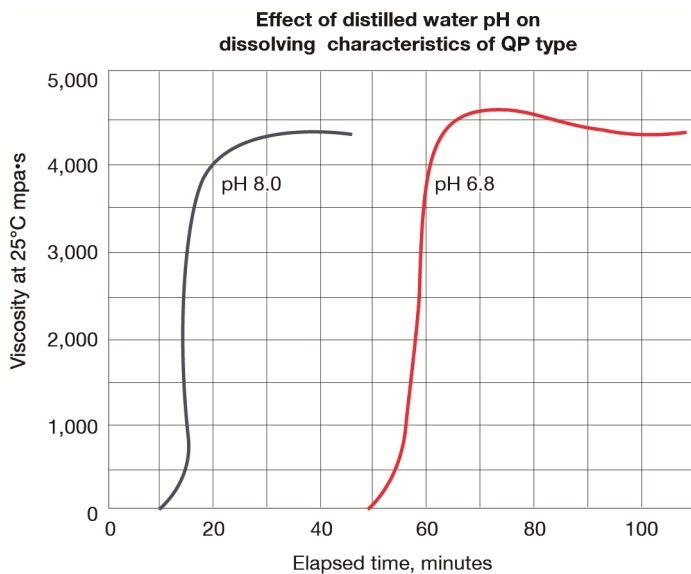
Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

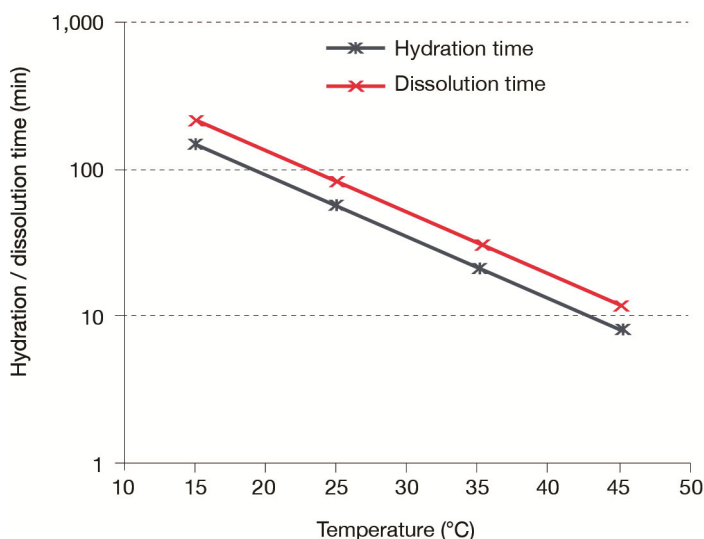
Property	Unit	Result
Appearance		White to off-white powder
Brookfield Viscosity (25°C)- 2% in Water	mPa.s	4800–6000
Refractive Index (20°C)		1,336
Bulk Density	g/cm ³	0,3–0,6
Particle Size Distribution (US #20 Mesh: 841 µm)	%	98

Formulating Tips

Agitation of solutions at a pH 7,0 or lower is recommended to make initial dispersion of CELLOSIZETM HEC QP-4400H Europe PCG Thickener in water. After the CELLOSIZETM HEC QP-4400H Europe PCG Thickener is well dispersed, subsequent pH increase and temperature increase can be used to speed up hydration and dissolution if required. Once hydrated CELLOSIZETM HEC QP-4400H Europe PCG Thickener can be used in personal care formulations that can have a pH within the range pH 3–10.



Graph 1: pH effect on CELLOSIZETM HEC Thickener hydration time



Graph 2: Temperature effect on CELLOSIZETM HEC Thickener hydration / dissolution time

Compatibility

The nonionic structure of CELLOSIZETM HEC QP-4400H Europe PCG Thickener offers good compatibility with surfactants and other formulation ingredients like inorganics salts, gums, resins.

**Handling
Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

**Usable Life and
Storage**

CELLOSIZETM HEC QP-4400H Europe PCG Thickener is a water-soluble solid that is normally supplied as a powder in multi-ply papers bags. Moisture and heat can cause CELLOSIZETM HEC QP-4400H Europe PCG Thickener to form lumps, so bags should be stored in a dry location at a temperature less than 40°C.

Good housekeeping should be used when handling CELLOSIZETM HEC QP-4400H Europe PCG Thickener to reduce the risk of slipping hazards. If CELLOSIZETM HEC QP-4400H Europe PCG Thickener is spilled, as much as possible should be swept before it becomes wet. Washing with water, solvents, or most cleaning products will probably not be effective and may increase the slipping hazard. High pressure water blasting can be used to remove buildup of material.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**Health and
Environmental
Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

**Disposal
Considerations**

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

**Product
Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

dow.com

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