



Industrial Specialties

METHOCEL™ 311 – Ideal for Paint Stripper Formulations

High Viscosity Characteristics Designed for
Better Water/Organo-Solubility



METHOCEL™ 311 High-Viscosity Products are specifically designed for end uses where the combined water/organo-solubility provides advantaged characteristics – as in paint stripper formulations.

These products have good rheology properties and reduced solvent evaporation rates. This allows formulations made with METHOCEL™ 311 to have longer contact time – and to stick better to vertical surfaces.

METHOCEL™ 311 grades provide excellent dry flow properties, low dust formation, and lump-free dispersibility in both water as well as organic solvents.

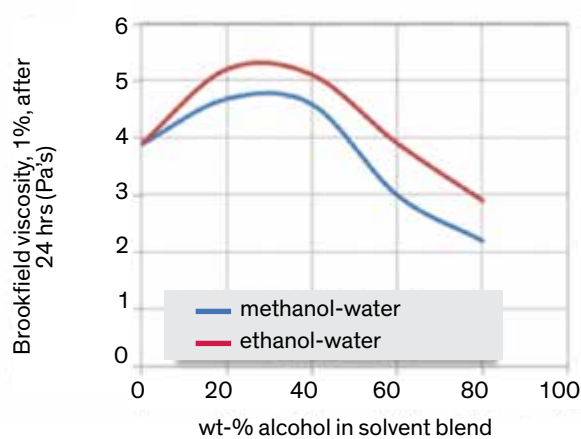
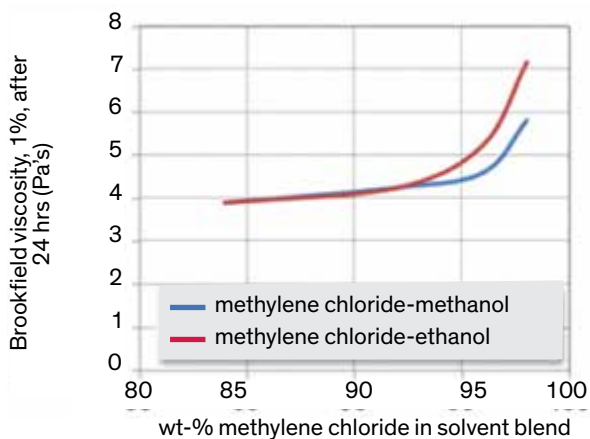
The material can be added directly to any solvent or solvent-blend under normal agitation. When using solvent blends, there is no need to pre-disperse the product in a non- or low-solvent component.

The molecular design of METHOCEL™ 311 enables them to be soluble in water, certain organic solvents, and in blends of solvents.



Solvent		Solution Appearance
Ethanol		Hazy, structured
Methanol		Hazy, structured
Ethanol/Water	40/60	Clear, smooth
Methanol/Water	40/60	Clear, smooth
Methylene chloride		Hazy, structured
Methylene chloride/Ethanol	84/16	Clear, smooth
Methylene chloride/Methanol	84/16	Clear, smooth
THF		Swellable
THF/Water	90/10 – 20/80	Clear, smooth
Isopropanol		Insoluble
Isopropanol/Water	80/20 – 40/60	Clear, smooth
Isopropanol/Methylene chloride		Clear, smooth
Polypropylene glycol		Insoluble
Dimethyl formamide		Clear, smooth
Dowanol PM		Clear, smooth

Examples of Methocel™ 311 viscosities in various solvent systems



Typical properties of Methocel™ 311 products

Typical properties	
Physical form	Slightly off-white powder or granules
Viscosity (1 % Brookfield RVT, RT, 20 rpm) in	
Water	> 10,000 mPas
Methanol	500 mPas (after 1hr)/ 650 mPas (after 24 hrs)
Ethanol	600 mPas (after 1hr)/ 900 mPas (after 24 hrs)
Methylene chloride	7,500 mPas (after 1hr)/ 10,00 mPas (after 24 hrs)

Formulation example

Component	Amount
Solvent / Solvent blend	91 – 97 parts
Surfactant	0.3 – 2 parts
Methocel™ 311	1 – 3 parts

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