



# Tradename Solution Properties Report

**Tradename:** Walocel MT 10000-GO and MT 10000-PV

**Chemical:** Hydroxyethyl Methylcellulose

Grade	Technical
Form	Powder or Granule
Molecular Weight (Mw)	1.4000 MM
Molecular Weight (Mn)	0.1100 MM
Ionic Character	Nonionic
Degree of Substitution	1.80 - 2.00
Molar Substitution	0.18 - 0.22

## Solubility

Solubility in Water Soluble in cold and warm H2O

## Solution Preparation

Disperse + allow partcls to wet out, after diluted to requird concentratn, shift pH to 8.5-9 for solubilizatn.

## Physical Properties

pH				7.0
Specific Gravity	at	2.0	wt % Conc	1.0038
Partial Specific Volume				0.717
Freezing Point	at	2.0	wt % Conc	0.0 C
Specific Heat	at	10-25	wt % Conc	0.93 cal/g C
Refractive Index	at	2.0	wt % Conc	1.336
Interfacial Tension				27.0 dyne/cm
Surface Tension	at	1.000	wt % Conc	51.0 dyne/cm

## Viscosity

Viscosity Behavior Pseudoplastic

Intrinsic Viscosity, Nonionizing Conditions  
Aqueous Solution 9.9500 dl/g

Viscosity vs Concentration

Viscosity (cP)	Concentration (wt %)
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2.76	0.000
2160.00	1.500
91500.00	3.000

## Tradename Solution Properties Report

Hoeppler Viscometer  
 Temperature 20 C  
 Shear Rate 0.10 1/s  
 pH 3.0 - 11.0

### Viscosity vs Shear Rate

Viscosity (cP)	Concentration (wt %)	Shear Rate (1/s)
14200.00	2.0	1.000
3620.00	2.0	32.000
335.00	2.0	1000.000

Hoeppler Viscometer  
 Temperature 20 C  
 pH 3.0 - 11.0

### Viscosity vs Temperature

Viscosity (cP)	Temperature (C)
17100.00	8
8550.00	24
5040.00	40

Hoeppler Viscometer  
 Concentration 2.0 wt %  
 Shear Rate 86.000 1/s  
 pH 3.0 - 11.0

### Viscosity vs pH

Viscosity (cP)	pH
10416.70	3.0
10416.70	11.0

Hoeppler Viscometer  
 Concentration 2.0 wt %  
 Temperature 20 C