



**PETRONAS**

# **CARBOWAX™ POLYETHYLENE GLYCOLS**

**PETRONAS CHEMICALS GROUP BERHAD**  
CHEMISTRY FOR GROWTH



ISO 9001:2008, ISO 14001:2004

**PCG**  
**Polyethylene**  
**Glycols**  
**Plant**

## CARBOWAX™

CARBOWAX™ (POLYETHYLENE GLYCOLS) belongs to a family of water-soluble linear polymers formed by the reaction of ethylene oxide with ethylene glycol. It is used as chemical intermediates in various industries such as HPC, lubricants, and textile processing. PCG produces CARBOWAX™ with molecular weights ranging from 200 to 1000, including special grades of CF45 and CF59 specifically for cutting fluids used in solar panel manufacturing.

### PETRONAS CHEMICALS DERIVATIVES SDN. BHD. (PCDSB)

- Kertih, Terengganu
- 25 KMPA Polyethylene Glycols

### Product Applications

APPLICATIONS	FUNCTIONS	RECOMMENDED CARBOWAX™ SERIES						
		PEG 200	PEG 300	PEG 400	PEG 600	PEG 1000	CF45	CF59
Adhesives	Viscosity modifying, Freeze/Melt Range, Chemical Structure		•	•	•			
Agrochemicals	Water Solubility, Solvency, Hydroscopicity	•	•					
Antistatic Agent	Hydroscopicity	•	•	•	•			
Ceramics	Water Solubility, Viscosity modifying, Solvency, Lubricity, Chemical Structure	•	•	•	•			
Dye Carrier	Viscosity modifying, Solvency	•	•	•	•			
Personal Care	Hydroscopicity	•	•	•	•			
Inks	Viscosity modifying, Solvency, Lubricity, Hydroscopicity	•	•	•	•			
Lubricants	Water Solubility, Viscosity modifying, Lubricity	•	•	•	•	•		
Cutting Fluid	Heat transfer fluid						•	•

### Product Specifications

COMPONENTS	UNITS	RECOMMENDED CARBOWAX™ SERIES						
		PEG 200	PEG 300	PEG 400	PEG 600	PEG 1000	CF45	CF59
Molecular Weight	MW Unit	190 - 210	285 - 315	380 - 420	570 - 630	950 - 1050	190 - 210	285 - 315
pH-5% aq at 25°C		4.5 - 7.5	4.5 - 7.5	4.5 - 7.5	4.5 - 7.5	4.5 - 7.5	6 - 7	5.5 - 7.5
Colour	Pt-Co	25 max	18 max	18 max	0 - 18	18 max	25 max	18 max
Water	% Weight	0.5 max	0.5 max	0.5 max	0.5 Max	0.5 max	0.5 max	0.5 max
Acidity, as Acetic	% Weight	0.02 max	0.02 max	0.02 max	0.02 max	0.02 max	0.02 max	0.02 max
Visc @ 210°F	cSt	4.0 - 4.8	5.4 - 6.4	6.8 - 8.0	9.9 - 11.3	16.0 - 19.0	4.0 - 4.8	5.4 - 6.4

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