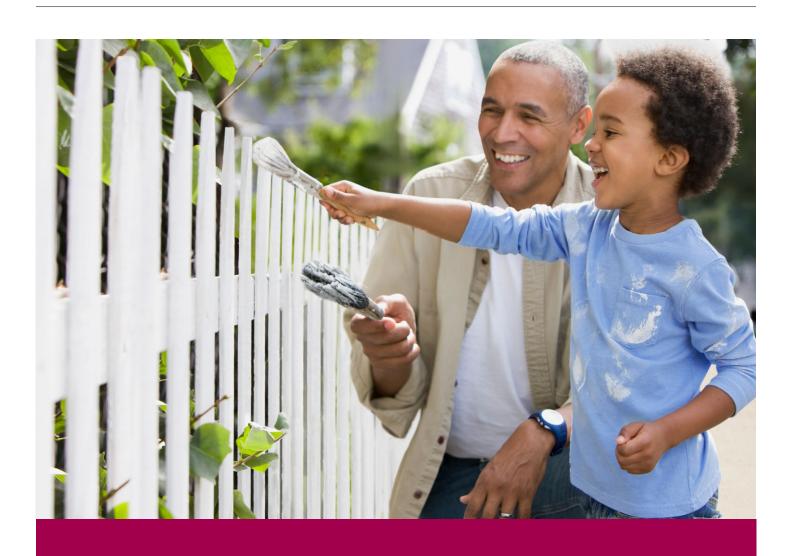


Dow Industrial Solutions

Delivering Solutions to Meet Your Coatings Formulation NeedsProduct Offering Overview



Dow Offers a Diverse Product Portfolio to Meet Your Coatings Formulations Needs

Coatings formulators face ongoing challenges to provide high-performing yet cost effective products. It is critical for ingredients in these complex formulations to be compatible in order to form and maintain a successful coating. Even the smallest amount of additive can affect the performance and quality of the entire formulation.

Dow has over half a century of experience developing innovative products to enhance the performance of coatings formulations. Dow's diverse portfolio offers formulators a single source for essential ingredients, including dispersants, solvents, stabilizers, surfactants and more. The Company's long standing leadership in the industry and its deep technical experience, which includes high throughput research capabilities, make Dow a strong collaborator for formulators to meet current and future needs.

Commitment to Air Quality

Dow continues to develop innovative products to aid formulators in meeting evolving regulatory requirements. This includes two recently developed technologies, DOWANOL™ LoV 485 Glycol Ether and DOWANOL™ EPh6 Glycol Ether, which offer the lowest Volatile Organic Content (VOC) in the industry to meet regulations and decrease impact to the environment.

AMINES
CHELANTS
HIGHER ETHYLENE GLYCOLS
POLYALKALENE GLYCOLS
POLYETHYLENE GLYCOLS (PEGs)
OXYGENATED SOLVENTS
SURFACTANTS

Low VOC Product	Application	VOC Content (ASTM D6886)
DOWANOL™ LoV 485	Plasticizer or Coalescent	< 0.5 wt%
DOWANOL™ EPh6 Glycol Ether	Freeze/Thaw Additive	< 5 wt%

Application	Product Family	Dow Solution
Chemical Intermediate	Amines	Ethyleneamines Alkyl Alkanolamines
	Polyethylene Glycols (PEGs)	• CARBOWAX™ PEGs
Coalescent	Oxygenated Solvents	DOWANOL™ LoV 485 Glycol Ether DOWANOL™ Glycol Ethers CARBITOL™ Glycol Ethers CELLOSOLVE™ Glycol Ethers UCAR™ Filmer IBT
Color Acceptance	Surfactants	ECOSURF™ Nonionic Surfactants TRITON™ Nonionic and Anionic Surfactants TERGITOL™ Nonionic Surfactants
Emulsifier / Dispersant	Amines	Alkyl Alkanolamines Isopropanolamines
	Oxygenated Solvents	• DOWANOL™ LoV 485 Glycol Ether
	Surfactants	ECOSURF™ Nonionic Surfactants TRITON™ Nonionic and Anionic Surfactants TERGITOL™ Nonionic Surfactants DOWFAX™ Anionic Surfactants
Flow / Leveling	Oxygenated Solvents	Alcohols Esters DOWANOL™ Glycol Ethers CARBITOL™ Glycol Ethers CELLOSOLVE™ Glycol Ethers PROGLYDE™ DMM Glycol Diether
	Surfactants	ECOSURF™ Nonionic Surfactants TRITON™ Nonionic and Anionic Surfactants TERGITOL™ Nonionic Surfactants

Application	Product Family	Dow Solution
Humectant / Hygroscopicity	Polyethylene Glycols (PEGs)	• CARBOWAX™ PEGs
Metal Ion Control	Chelants	• VERSENE™ Chelants • VERSENEX™ Chelants
pH Control / pH Stability	Amines	Ethanolamines Isopropanolamines
Plasticizer / Low VOC Coalescent	Oxygenated Solvents	DOWANOL™ LoV 485 Glycol Ether
Polyurethane Dispersion	Oxygenated Solvents	PROGLYDE™ DMM Glycol Diether
Solvent	Higher Ethylene Glycols	Triethylene Glycol Tetraethylene Glycol
	Polyalkylene Glycols	• UCON™ Lubricants
	Polyethylene Glycols (PEGs)	• CARBOWAX™ PEGs
	Oxygenated Solvents	 Alcohols Esters DOWANOL™ Glycol Ethers CARBITOL™ Glycol Ethers CELLOSOLVE™ Glycol Ethers PROGLYDE™ Glycol Diether
Stabilizer (formulation, pigments, freeze-thaw)	Surfactants	 ECOSURF™ Nonionic Surfactants TRITON™ Nonionic and Anionic Surfactants TERGITOL™ Nonionic Surfactants DOWFAX™ Anionic Surfactants
	Oxygenated Solvents	DOWANOL™ EPh6 Glycol Ether
Viscosity Reduction	Oxygenated Solvents	 Alcohols Esters DOWANOL™ Glycol Ethers CARBITOL™ Glycol Ethers CELLOSOLVE™ Glycol Ethers PROGLYDE™ DMM Glycol Diether
	Surfactants	 ECOSURF™ Nonionic Surfactants TRITON™ Nonionic and Anionic Surfactants TERGITOL™ Nonionic Surfactants DOWFAX™ Anionic Surfactants
Volatility / Cure Rate / Evaporation Rate	Oxygenated Solvents	Alcohols Esters DOWANOL™ Glycol Ethers CARBITOL™ Glycol Ethers CELLOSOLVE™ Glycol Ethers PROGLYDE™ DMM Glycol Diether
Wetting Agent	Surfactants	 ECOSURF™ Nonionic Surfactants TRITON™ Nonionic and Anionic Surfactants TERGITOL™ Nonionic Surfactants DOWFAX™ Anionic Surfactants
	Oxygenated Solvents	• DOWANOL™ LoV 485 Glycol Ether

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.

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