

# Building Blocks for Better Protection

## Dow Isocyanates and Polyols for Coating Applications

Dow's polyurethanes chemistry has far-reaching applications in coatings that protect industrial equipment, consumer goods and everything in between. Dow Polyurethanes is a leading global supplier of high-performance polyurethane raw materials such as polyether polyols and aromatic isocyanates used to produce robust coatings that are as protective as they are attractive.

### Isocyanates for Coatings

ISONATE™ MDI (methylene diphenyl diisocyanate) isocyanates from Dow are characterized by their purity, low acidity and reproducible reactivity. Dow also offers: PAPI™ polymeric MDI products noted for their resistance to heat distortion and excellent strength properties at low densities; VORASTAR™ (polyol modified MDI) with excellent humidity and chemical resistance; and HYPERLAST™ (polyol modified MDI) that enables thick-film coating.

Product	Isocyanate Equivalent Weight (g/eq)	% NCO	Functionality	Viscosity cSt @77 °F	Description
PAPI™ 95	133.5	31.5	2.3	50 cP	Polymeric MDI with moderate 2,4-MDI content suitable for rigid coatings with extended working time
PAPI™ 94	131.5	32	2.3	50 cP	Polymeric MDI with moderate 2,4-MDI content suitable for rigid coatings and prepolymers
ISONATE™ OP 50	125.5	33.5	2.0	10 cP	Pure MDI with 50% 2,4-MDI content low viscosity prepolymers and coatings with improved surface cure
ISONATE™ 143L	144.9	29	2.1	33 cP	High reactivity liquid MDI useful for manufacturing prepolymers or as a curative for 2K PU coatings
HYPERLAST™ 6724	182.6	23.1	2.1	450 cP	Specially formulated to 4,4 MDI to provide low-temperature stability during storage and transport
HYPERLAST™ 5600	233.4	18	2.1	500 cP	All 4,4 MDI isocyanate for hybrid polyurea coatings
VORASTAR™ 6042	262.6	16	2.0	700 cP	High 2,4 MDI isocyanate with excellent freeze stability. Improves surface finish of polyurea coatings
HYPERLAST™ LP 5601	280.0	15	2.0	500 cP	Modified 4,4 MDI isocyanate for hybrid and polyurea coatings
HYPERLAST™ 6712	350.2	12	2.1	700 cP	NCO-terminated prepolymer formulated to significantly reduce liner shrinkage in pure polyureas

## Polyols for Coatings

Dow polyols are robust and versatile, offering advanced hydrophobic properties, improved processing, ease of formulation and excellent mechanical properties in a range of applications. VORANOL™ polyether polyols offer high resilience and flexibility along with excellent processing attributes for coatings applications, while VORAPEL™ hydrophobic polyether polyols offer exceptional moisture and chemical resistance for use in extreme environments.

Product	Functionality	Equivalent Weight (g/eq)	Viscosity cSt @77 °F	Description	Use
VORANOL™ 220-110	2.0	500	500	Polyether polyol	Prepolymers and flexible coatings
VORANOL™ 220-056	2.0	1000	500	Polyether polyol	Prepolymers and flexible coatings
VORANOL™ 222-056	2.0	1000	500	EO capped polyether polyol	Prepolymers and flexible coatings
VORANOL™ 222-029	2.0	1900	700	EO capped polyether polyol	Prepolymers and flexible coatings
VORANOL™ 232-034	3.0	1650	450	EO capped polyether polyol	Prepolymers and flexible coatings
VORANOL™ 240-360	4.5	155	3000	Sucrose initiated polyether polyol	Crosslinker for rigid coatings
VORANOL™ 800	4.0	70	17000	Amine initiated polyether polyol	Crosslinker for rigid coatings
VORANOL™ 230-660	3.0	85	300	Polyether polyol	Crosslinker for rigid coatings
VORANOL™ 230-238	3.0	235	150	Polyether polyol	Crosslinker for rigid coatings
VORAPEL™ D 3201	2.0	1000	300	Hydrophobic polyether polyol	Hydrophobic prepolymers and chemical-resistant flexible coatings
VORAPEL™ T 5000	3.0	215	360	Hydrophobic polyether polyol	Hydrophobic crosslinker for chemical resistance

## Technical Service and Support

Dow works closely with our global customers to push the limits of performance and new coatings applications built on our isocyanate and polyol building blocks. Our broad and versatile product portfolio includes materials that allow fast cure, excellent flexibility, superior bond strength and much more. Our products are backed by more than 60 years of experience in polyurethane chemistry, as well as technical and application assistance to help you meet even the most demanding requirements.

Contact us to discuss how our isocyanates and polyols can enhance your coatings today.

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