

Product information

AMICURE[®] IC 186

Polycarbamide amine curing agent

DESCRIPTION

Amicure IC 186 is designed to cure with standard HDI Trimer. When formulated, Amicure IC 186-based clear and pigmented coatings exhibit rapid property development. The unique feature of this product is its best in class potlife compared to typical polyaspartics. The coatings based on Amicure IC 186 resins can be spray applied using conventional and airless spray.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Clear liquid		
Colour	1 MAX	Gardner	ASTM D 1544
Viscosity @ 25°C	1000-2000	mPa.s	Brookfield RVTD, spindle 4
Amine Equivalent Weight	268-274		
Specific Gravity @ 21 °C	1.09		

ADVANTAGES

- Rapid hardness development
- Low color and excellent UV durability
- C3-type corrosion protection

APPLICATIONS

- Light industrial applications
- Structural steel
- Steel doors and window sills
- Storage tanks
- Railings
- Machinery
- Steel decking

SHELF LIFE

At least 12 months from the date of manufacture in the original sealed container at ambient temperature. Store away from excessive heat and humidity in tightly closed containers.

STORAGE AND HANDLING

Refer to the Safety Data Sheet on Amicure IC 186 curing agent.

TYPICAL HANDLING PROPERTIES

Property	Value	Unit	Method
Isocyanate resin	HDI Trimer		21.8 wt% NCO, 2500cPS@ 25°C
Mix ratio (Amine to Isocyanate by weight)	1.05 -1.1		
Viscosity Build (250 g/l VOC)	52	min	time to 1000 cP
Carbamation Resistance	5		Scale 1-5, 5=best

DRY FILM TIMES (22°C 50% RH)

Property	Value	Unit
Set to touch	0.4	h
Tack free	2	h
Through cure	2.45	h

AMICURE IC 186 WHITE TOP COAT STARTING POINT FORMULATION

Raw Materials - Part A	Pounds	Gallons	Supplier
Amicure IC 186	306.08	34.49	Evonik
BYK 163	7.92	0.96	BYK
Tipure R 960 TiO ₂	341.45	10.35	Elementis
Part A Total	664.49	45.8	
Raw Materials - Part B	Pounds	Gallons	Supplier
HDI Trimer	222.89	23.68	
Methyl Amyl Ketone	206.32	30.52	Eastman
Part B Total	425.74	54.20	
Part A + Part B	1090.23	100	
Formulation Properties	Values	Unit	
VOC	2.15	lb./gal	
Volume Solids	68.6		
Weight per gallon	10.9	lb./gal	
PVC	15.29	%	

AMICURE IC 186 WHITE DTM STARTING POINT FORMULATION

Raw Materials - Part A	Pounds	Gallons	Supplier
Amicure IC 186	305.83	33.35	Evonik
BYK 163	7.92	0.96	BYK
Tipure R 960 TiO ₂	289.04	10.35	Elementis
Heucophos ZAPP	61.17	0.74	Heaubach
Part A Total	663.96	45.4	
Raw Materials - Part B	Pounds	Gallons	Supplier
HDI Trimer	228.94	24.33	
Methyl Amyl Ketone	206.32	30.27	Eastman
Part B Total	425.74	54.6	
Part A + Part B	1090.23	100	
Formulation Properties	Values	Unit	
VOC	2.15	lb./gal	
Volume Solids	68.6		
Weight per gallon	10.9	lb./gal	
PVC	15.29	%	

AMICURE IC 186 CORROSION PERFORMANCE ON COLD ROLLED STEEL B 952 AND BLASTED STEEL

Salt spray 500 hrs	Corrosion creep	Face Blisters
Cold rolled Steel B952	10	10
Blasted Steel	10	10

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