

DIVISION OF McADOO & ALLEN, INC.

201 S. HELLERTOWN AVENUE P.O. BOX 219 QUAKERTOWN, PENNSYLVANIA 18951-0219 (215) 536-3520 FAX (215) 536-6464 www.quakercolor.com

Technical Data Sheet

Product Code: AB-90F

DESCRIPTION

AB-90F is NMP free, high performance aliphatic polyester urethane dispersion with adhesion on metal, plastic and concrete substrates. AB-90F could be used as is or with crosslinked through COOH functional groups. Coatings based on AB90F will be hard and with high chemical, solvent and water resistance.

APPLICATIONS

- Interior and exterior automotive plastics
- Consumer electronics such as cellular phones, computers and TV housing
- Concrete coatings
- Light duty metal coatings
- Other applications requiring excellent mar and scuff resistance

FEATURES

- Adhesion to PC, ABS, PC/ABS mixtures
- Excellent chemical
- Excellent hardness

PROPERTIES

Appearance Clear Liquid
Percent Solids, weight 34 +/- 1
Specific Gravity, 25°C 1.04
pH 8.3 - 9.5

STORAGE

Store in a cool, dry place, preferably less than 80°F, to ensure a useful shelf life of 18 months. Protect from freezing. Mix before use.



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STARTING POINT FORMULATION

Material Component 1	Lbs.	Supplier			
AB-90F	93.00	Quaker Color			
DPNB	5.00	Eastman			
Tego 901W	0.30	Degussa			
BYK 346	0.90	BYK			
Rheolate 300	0.80	Elementis			
Total	100.00				

Cure schedule: 30min@60°C, 3 days at ambient temperature For ambient cure only increase the solvent content to 7%

CROSSLINKERS

- Water Reducible Isocyanate, 3-5% on total formula
- Carbodiimide XL-732N 5-6% on total formula
- Epoxy-silane, 6% on total formula
- Fastest property development when X-linked with isocyanate and XL-732N.

Metal Primer Formulation

Material	Lbs.	Supplier		
AB- 90F	48.43	Quaker Color		
DPNB	3.40	Eastman		
Tego 901W	0.20	Degussa		
Byk 346	0.46	Byk		
Aerosil R972	0.35	Degussa		
OTL R 57	24.71	Quaker Color		
Talc 399	21.97	Nytal		
Flash X	0.48	Halox		
Total	100.00			



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TEST RESULTS

Hardnes	s	Sward	44				Pe	ncil	2Н				
Dry Adhesion	, tape	Al	5B	CRS	5B	B1	000	5	B Tin		4B	PC	5B
Mechanic Propertie No crosslinki	es	Tensile		4376		Elongation 311			Modulus	3432			
Stain, 2hrs	Butter	Coffee w/cream	Gravy	Hair oil	Ket	chup Lipsti		ck Mayonnaise		Orange Juice	Soup	Mustard	
Epoxy Silane X-Link No recovery time/24 hrs recovery	5/5	3/3	5/5	5/5	5	5/5 5/5		5/5		5/5	5/5	2/3	
Carbodiimide X-Link No recovery time/24 hrs recovery	5/5	2/3	5/5	5/5	5/5		5/5		5/5		5/5	5/5	2/3

⁵⁻ no effect; 4- slightly visible stain, no softening, no blistering

Automotive Interior Plastics

Test	PC substrate, isocyanate X-Link							
Cure	30 min@ 80°C, 72 hrs RT							
Dry Adhesion, tape								
		5B						
Wet Adhesion, tape								
	5B							
(immersion,96 hrs @ 74°C)								
	Aspect	AATC		nger h Test				
			8N	13N				
Dry Cloth	mars	5						
Windex x 10 DR	mars	4-5						
Fantastic x 10 DR	mars	4-5						
Formula 409 x 10DR	mars	4-5						
Suntan @74°C x 1hr	5		pass	fail				
DEET @ 74°C x 1 hr	5		pass	fail				

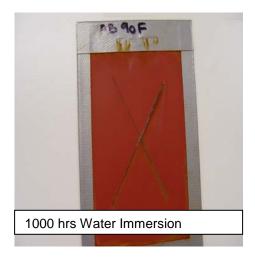
³⁻ visible stain, 50% the color of the stain



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Metal Primer



Dry to sand 1000 hrs Water Immersion

90 min

No delaminating, blistering or corrosion to scribe or field

Could be used with waterborne or solvent borne base coats or top coats.

Quaker Color manufactures all its products under carefully controlled conditions to meet rigid specifications. The values given in this publication are typical values intended as guidelines for the use of the products, they are not specifications. It is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficacy and safety. Should you require the actual specifications currently enforced on specific products contact your Quaker Color representative for the appropriate information.