PLAINTIFF'S EXHIBIT
UC-873

UNION CARBIDE CORPORATION 2326 LONNECKER DRIVE, GARLAND, TX 75041-1296
COATINGS MATERIALS DIVISION PHONE (214) 271-2451
Water-Borne Coatings Materials Plant

February 23, 1983

RECEIVED
MAR 1 1983
W. P. Miller

Mr.J.H. Street
Play-Rite Courts
c/o Master Crete
1413 West 11th St.
Kansas City, MO 64101

Dear Mr. Street:

File MA322

At the request of our Account Representative,Mr. M.E. Harmony, we are pleased to send you a suggested tennis-court topcoat formulation 4JG-177A based on two latex binders to approximate the durability and impact resistance of your current AC-635 binder.

Both are acrylic polymers known to have good durability in exterior coatings. UCAR Latex 163 is a low T_g° type resin for better impact strength in tennis-court coatings.

A dust mask should be employed when adding the"CALIDRIA HPO FIBERS" at the end of the batch. You may wish to evaluate a synthetic fiber called"PULPEX E" from the LEXTAR Div. of Hercules Inc.(Dallas,TX.) (214) 669-3131; as a replacement for the asbestos-like CALIDRIA HPO FIBERS . I suggest about 15 LBS./114 gallon batch as a starter. You may have to increase the level of CELLOSIZE thickener to suit your type of product application (spray or Squeegee); or if water is used on the job for dilution.

Gallon samples of both UCAR Acrylic 515 and UCAR Latex 163 will be sent to your attention for evaluation in tennis-court coatings.

Thank you for your kind interest in our latex binders, and please contact Mr. Harmony if additional information is needed.

Very truly yours,
R. C. Pierrehumbert
R.C. Pierrehumbert
Coatings Scientist

Attachments(3)
RP:rp

CC: Mr. M.E. Harmony(Home)
Union Carbide Corporation

A23342

QUALITY EMULSION POLYMERS



SUGGESTED
DK. GREEN ACRYLIC TOPCOAT FOR
TENNIS COURTS

4JG-177A

ADD THE FOLLOWING INGREDIENTS UNDER AGITATION:	POUNDS	GALLONS
WATER	291.5	35.0
CELLOSIZE QP-15000H	3.0	0.3
	(MIX FOR 5-MIN., THEN CONTINUE)	
TROY POLYPHASE ANTI-MILDEW	3.0	0.3
TROYSAN 192 Preservative	2.0	0.2
POTASSIUM TRIPOLYPHOSPHATE	1.0	0.1
NALCO 2324 Dispersant	6.0	0.6
NALCO 2300 Defoamer	0.7	0.1
TERGITOL NP-40(70AQ)	3.0	0.4
TEXANOL	15.0	1.9
PROPYLENE GLYCOL	25.0	2.7
ASP-400P	75.0	3.5
GOLD BOND "R" (Amor.Silica)	50.0	2.3
CHROME OXIDE GRN.(G-6099)	75.0	1.8
BLK. IRON OXIDE(BK-5098)	5.0	0.1
	DISPERSE TO HEGMAN #3,THEN ADD WITH SLOWER AGITATION:	
"RUFF-BUFF" FINE SAND	75.0	3.4
UCAR ACRYLIC 515 (53%NV)	381.0	41.4
UCAR LATEX 163 (58%NV)	58.0	6.5
WATER	62.5	7.5
CALIDRIA HPO FIBERS(Add Slowly)	45.0	2.0
TERGITOL NP-40(70AQ)	2.0	0.2
NALCO 2303 Defoamer	5.0	0.6
AMP-95 A23343	1.0	0.1
WATER	25.0	3.0
TOTALS	1209.7	114.0

PHYSICAL CHARACTERISTICS

% PVC	31.8(With only 1/2 Sand Vol.)
% TOTAL SOLIDS BY WT.	47.8(with All Sand Wt.)
PVC/CPVC RATIO	0.94
TYPICAL pH VALUE	8.0 - 8.5
APPROX. RMC/GAL.	$4.18
WT./GALLON	10.6 LBS.

IMPORTANT:
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UNION CARBIDE CORPORATION • SOLVENTS AND COATINGS MATERIALS DIVISION • OLD RIDGEBURY ROAD, DANBURY, CT 06817

ADHESIVES AND SEALANTS MATERIALS

Product Information

UCAR® Latex 163 For Water-Based Caulks and Sealants

UCAR Latex 163 is a high-solids all-acrylic binder designed for formulating high-performance water-based sealants. Sealants made with UCAR Latex 163 will bond to a variety of substrates without the need for a separate primer. They have low odor, are non-staining, and dry quickly with little dirt pick-up. They can be painted over with latex paints within an hour after application. Cleanup is easy with water. Package stability of over one year can be expected of properly formulated UCAR Latex 163-based sealants. Since these products set through loss of water, storage stability is maintained by prevention of that loss.

TABLE 1
TYPICAL PROPERTIES

Emulsion Properties	
Polymer Type	Soft, self-crosslinking acrylic
Total Solids	60%
Viscosity(1)	300 cP
pH at 25°C	4.5
Apparent Specific Gravity at 20/20°C	1.08
Average Weight per Gallon at 20°C	9.0 lb
Surface Tension	46.0 dynes per cm
Stability	
Mechanical Shear	Excellent
Electrolyte	Excellent
Freeze-Thaw	Protect from freezing
Film Properties	
Ultimate Tensile Strength(2)	320 psi
Ultimate Elongation	600%
Glass Transition Strength (Tg)(3)	-7°C
Polymer Flexibility	Soft

(1) Brookfield Model LVT, Spindle No. 2, 60 rpm.

(2) On films cured 6 minutes at 300°F.

(3) Secant Modulus Method.

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UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
270 Park Avenue, New York, N.Y. 10017

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...UCAR® ACRYLIC 515.

UCAR® Acrylic 515 is a terpolymer that can be formulated into paints with improved adhesion to glossy and weathered substrates. The exterior durability is comparable to UCAR Latex 503, which has been proved by eight years of exterior durability testing. While designed for exterior application, UCAR Acrylic 515 can also be used for interior flat and semi-gloss paints.

- Rapid development of wet adhesion.
- Excellent exterior durability.
- Resistance to chalking and dirt pickup.
- Excellent exterior tint retention.
- Improved pigment binding and scrub resistance.
- Chalky-surface adhesion.
- Improved flow and leveling.
- Good gloss

Table 1- Typical Properties of UCAR® Acrylic 515

Total Solids	53% by wt
pH	8.5
Brookfield Viscosity at 60 rpm	250 cP
Minimum Filming Temperature	10°C
Glass Transition Temperature (Tg)*	11°C
Average Particle Size	0.5 micron
Weight Per Gallon	9.10 lb
Bulking Value of Dry Solids	0.101 gal/lb

*Differential Scanning Calorimeter Method.

A23345

D I S T R I B U T I O N

K.B. Mc GUINN(Chicago DSO)

W.D. MASSEY

H. MAYFIELD

A.A. MEES

W.P. MILLER

E.L. PETERSON

D.E. STOCKMAN

A23346