This specification outlines procedures for color coating new, uncoated concrete or restoring color coating on existing concrete tennis courts.

A new concrete pavement shall have necessary slope to provide good drainage. Also, it must have cured for 28 days. Cracks, dings, and any irregularities should be pre-patched with flexible EXTOL CRACK FILLER.

For more detailed information on new concrete see ECC- System specification.

Etch the concrete thoroughly using a solution of Muriatic Acid mixed one part Acid to twelve parts water. Scrub and rinse before the Acid dries. For best results scrub the surface with a rotary type floor finisher having nylon, silicone-carbide brushes. Then neutralize the acid by washing the surface with clear Ammonia mixed one part ammonia to ten parts water. After this step, flush the concrete thoroughly with clean water.

Ext, apply EXTOL BOND COAT by means of push broom, squeegee, roller or lambs wool applicator, spread evenly and work in or scrub into concrete.
Apply one coat only and do not allow build-up. Allow 24 hours to dry.

A base color coat of **EXTOL 3000** is now to be applied using a rubber squeegee. The formula for this base coat is as follows.

- **EXTOL 3000 Colo**r – One Gallon
- **Silica Sand** – (60 or 90 mesh) 6-8 pounds
- **Water** – Up to .5 gallons

The sand and water shall have mixed with the EXTOL 3000 color by means of mortar type mixture to a uniform mix. The mixture must be workable but not over diluted so as to be too runny. The size of the sand determines speed of play- – 90 mesh results in faster play, 60 mesh is slower play.

The usual technique for applying the various coats is to make one pass across the width of the

court with a 36 inch wide rubber squeegee. Apply coating evenly by walking in one direction across the court and then reversing direction and returning to starting point. Do not overwork and always maintain a wet edge. The procedure is repeated until the coating has been applied over the entire tennis court.

After a second application of this same mixture, the tennis court is ready for a finish (top) coat.

- **EXTOL 3000 color** – One Part
- **Water One** – half (.5) parts

This coat is applied in the same manner as the preceding coats. The tennis court is then ready for EXTOL white line marking paint.

The following guidelines describe the application of EXTOL 3000 color to a concrete tennis court that was previously coated and is in need of restoration.

Remove any loose coating by hydro blasting, sandblasting or grinding. Use a detergent and water to remove any dirt, oil, grease, or discoloration. Repair any cracks, depressions, or low areas. If bare spots exist, it may be necessary to Apply **EXTOL BOND COAT** (See specification ECC- 004)

After the concrete surface has been cleaned and repaired as necessary, the surface shall have a base coat applied- formula for which is as follows:

- **EXTOL 3000** – Two parts
- **Silica Sand (60 or 90 mesh)** – One Part
- **Water** – One-half (0.5) part

The mixing and application of the base coat is undertaken in the same manner as described on the preceding page., A second base coat may be required.

After the base coat(s) have dried apply a finish (top) coat using the following formula:

- **Extol 3000** – One Part
- **Water** – One-half (0.5) parts

After the finish coat has dried, snap chaulk lines to mark dimensions of the tennis court, mask playing line areas and apply EXTOL White Marking Line Paint.

A minimum of ten gallons of undiluted Extol 3000 Color should be used per 1000 square feet of surface for the base coats and a minimum of six gallons of EXTOL 3000 (undiluted) per 1000 square feet.

CAUTIONS:
Color coatings are not to be applied when the surface or air temperature is below 50º F or above 130º F of if rain or fog is imminent.

The ECC system of color coating asphalt and concrete tennis courts is a carefully designed and time proven method consisting of two base coats of EXTOL 3000 containing sand and one finish coat of EXTOL 3000, no sand. The resulting surface is tough and durable, water and ultra violet resistant, attractive, non-glaring and will withstand temperature variations. Ten standard colors are available in EXTOL 3000 and an infinite number of color variations are available by special order. All products are environmentally safe. Various supplementary EXTOL products such as Crack filler, Resurfacer, Bond Coat, Fortifier, and Cushion coat may be required or useful with the ECC System depending upon the condition of the surface to be coated.

To restore a previously coated Asphalt surface. (See specifications ECC- 002)
To apply to a new Asphalt surface. (See specification ECC- 001)
To resurface a previously colored concrete. (See specification ECC- 003)
To apply to a new concrete surface. (See specification ECC- 003)

The surface must have proper slope and drainage. Proper sloe (preferable one plane) is a minimum of one inch (1'') fall per fifteen feet (15') and a maximum of one inch (1'') fall per ten feet (10').

New asphalt must cure for 14 days under normal summer drying conditions, longer during cooler weather. New concrete should cure 28 days and then be acid etched using Muriatic Acid mixed (1) part acid to twelve(12) parts water. Apply this acid mixture, scrub thoroughly and rinse with water before the solution dries. Then neutralize the concrete by washing the surface with clear ammonia,

one (1) part Ammonia to ten (10) parts water. Flush surface thoroughly with clean water.

Previously coated surfaces must be clean and free of all grease, oil, dirt, or foreign matter. Clean by washing with a high pressure water hose or blow clean with an air broom. Grease or oil should be removed with a strong detergent and then flushed thoroughly with water. Check for low areas (bird baths) by wetting surfaces with a hose and allow to drain. Outline any low areas with chaulk and correct as necessary.

Any cracks should be repaired with EXTOL Crack Filler. (See specification ECC-007) If the surface to be color coated is very rough, EXTOL Resurfacer will reduce porosity and smooth the surface. (See specification ECC-006)

After the intended court surface has been adequately prepared, i.e., all surface defects corrected, low areas have been repaired for proper drainage, the surface is then ready for a Base Coat consisting of Sand, EXTOL 3000 and wayter. After thorough mixing, the base coat is then applied to the court surface by means of a 50 to 70 Durometer flexible rubber squeegee, 30 or 36'' width. The base coat is poured on one end of the base surface in sufficient quantitity to maqke one pass across width of court. The base court is spread evenly by walking in one direction and then reversing direction to return to starting point.
Do not overwork and always maintain a wet edge. This procedure is then repeated until base coat has been applied over entire court. When dry, any ridges, lumps or foreign matter is scraped off or otherwise removed. A second base coat is then applied at a 90 angle to the first coat in the same manner as the first coat. Again, any ridges, lumps etc. are removed.

DRYING TIME:
Atmospheric conditions affect the length of drying time- at 75 F. and 50% relative humidity the Extol products should dry within 30 minutes to one hour. Re-coating may take place about two hours after drying. New surfaced courts should not be played upon for 24 hours.

CAUTIONS:
Extol products should not be applied when temperature is below 50 F. or higher then 100F. nor should products be applied when rain or fog is imminent. Containers or mixing vessels should be kept closed when not in use.

WARRANTIES:
This information is believed to be true and accurate and is intended as a guide to approved construction practices and materials. Since workmanship, weather, construction equipment, quality and/or compatibility of other materials which can affect results are all beyond our control Extol warrants only that Extol products conform to product specifications of the company and limit our

liability to replacement of product.

Product Description:

EXTOL cushion coating. 3600 is a high performance 100 per cent acrylic coating consisting of specially selected crumb and rubber fillers. This product is to be applied over asphalt and concrete tennis court surfaces in multiple layers to create a shock absorbing surface which will give extra resilience. No. 3600 is to be applied in conjunction with Extol 3000 color coating.

Recommended Uses:

On tennis and other types of sport court surfaces to soften impact to feet, ankles, legs, knees, etc.

Color:

Neutral. This material can be colored by adding from 5% to 8% EXTOL 3000 Color Coating. Refer to EXTOL color cards.

Method of Application:

EXTOL Cushion Coat can be applied by standard squeegee with a 50-70 durometer flexible rubber blade.

Technical Date:

Vehicle:	Water- borne 100% Acrylic
Viscosity:	Semi-Paste
Weight Per Gallon:	10.8 lbs.
Solids by weight:	51%
Per Cent Acrylic Resin:	19.8%
Volatile Organic Content:	98 g/l
Cure Time:	At 77 F and 50% relative Humidity: 30 min. to one hour. Recoat after 3 to 4 hours. Allow 24 hours drying before play.

Dilution:

Mix 3 parts EXTOL Cushion coat to one part Water.

Coverage:

60 to 90 sq. ft. per gallon. EXTOL Cushion coat is designed to be applied in four to five coats. (The more layers, the more resilience)

Color Coating: After the Cushion Coats have through dried, apply two coats of EXTOL 3000 containing sand. (size of sand determines speed of play) Follow sand coats with two coats of Extol 3000, no sand. After 24 hours dry time apply EXTOL line paint.

Packaging:

Cushion Coat No. 3600 is available in 30 gallon fibre drubs and 55 gallon containers

Limitation:

- Do not apply if surface temperature is below 50F or greater then 148 F
- Do not apply when rain or fog is imminent
- Allow asphalt to cure a minimum of 14 days prior to applying cushion coating
- Allow concrete to cure a minimum of 28 days
- Keep container tightly closed when not in use
- Do not store material in direct sunlight
- Keep from freezing Cautions:

Not to be taken internally. Keep out of reach of children.

Surface Preparation:

All surfaces, whether previously coated or not, must be cured, sound, free of dirt, oil or grease and any other foreign matter.

Surfaces must have sufficient slope to insure proper drainage. Prior to application the court should be flooded with water and allowed to drain. IF water covers a five cent piece in any area, that area shall be patched.

DISCLAIMER OF WARRANTIES:

The statements contained herein or by any agents of EXTOL are presented for information. They are believed to be true and accurate and are intended to provide a guide only. Since workmanship, weather, construction equipment, quality of other materials and other variables affecting results are all beyond our control EXTOL does not make, nor are its agents authorized to make any warranty, guarantee or representation, express or implied, except that our materials shall conform to product specification distributed by the company. Any liability whatever of EXTOL is limited to replacement of the product. Claims regarding product defect must be received in writing within one (1) year from the date of shipment.

EXTOL fortifier is a pure acrylic resin designed for use over EXTOL coatings to create a clear, protective coating for additional strength against heavy wear on recreational game courts such as basketball, volleyball, handball, tennis courts, playgrounds, etc. EXTOL resurfacer is designed to delay premature resurfacing and to extend the life of the coating

Surface to be coated must be completely free of dirt and debris and devoid moisture. Normally, EXTOL fortifier is applied after the game courts have been newly coated and striped. Before opening for play, simply mix EXTOL Fortifier with equal amounts of clean water (1:1 ratio) and apply using a finisher's squeegee. Do not allow foam or build-up of product to dry on the surface. Apply one (1) coat evenly over all areas requiring protection.

COVERAGE:

One gallon (mixed) will cover approximately 350 square feet depending upon surface texture and porosity.

MIXING:

Mix equally with clean water (1:1 ratio).

RESULTS:

Creates an additional protective shield over hard wear surfaces, deepens color depth, hides unsightly squeegee, broom, or other application defects and increases surface speed of play.

PRECAUTIONS:

Do not apply EXTOL fortifier when temperature is below 55 degrees Fahrenheit or when rain is imminent!

EXTOL Crack filler is a very flexible, 100% acrylic polymer combined with special additives and pigments. This product is high in solids for minimum shrinkage has excellent adhesion and will correct large or small cracks of a non-structural nature. Crack filler is useful for both asphalt and concrete.

Tennis courts, basketball courts, walkways, playgrounds, roof decks.

All surfaces to be repaired should be clean and free of loose dirt, dust, oils, or greases. Clean cracks by means of air or water pressure. Remove any stains with detergent and then flush clean with water.

Crack filler is usually applied with a hand towel or a putty knife. Apply a narrow bead into the crack and force down into the crack. Repeat several times until the crack is solidly filled. Crack depths, greater then ¼ inch will definitely require multiple coats. Allow several hours dry time between applications. After drying, remove any rough edges.

EXTOL Crack filler is designed to be used without dilution or addition of other materials.

Remove all spilled material immediately. Clean all equipment with soap and water immediately after use.

Do not apply when surface temperature is below 50 F (10 C) or when rain or fog is imminent. Keep containers tightly closed when not in use.

This specification outlines procedures for color coating new asphalt or to restore a color coating on an existing asphalt tennis court.

The asphalt surface shall have proper slope to insure good drainage. Low areas to have no standing water greater then one-eight (1/8’’) inch. The new asphalt shall have cured a minimum of fourteen days. (See ECC general recommendations.)

If the new asphalt is rough textured, EXTOL RESURFACER(ECC-004) can be applied to reduce porosity and create a smoother surface.

If **RESURFACER** is not required or following an application of RESURFACER proceed to color coat the asphalt surface.
Use a mortar type mixer to combine EXTOL COLOR COAT Sand and Water using the following formula (by volume):

- EXTOL 3000 Color – Two (2) parts
- Sand (Oklahoma #1) – One (1) part
- Clean Water – Up to five-tenths (0.5) part

A somewhat fluid mix is desirable therefore it may be necessary to adjust the proportions accordingly. It is important to maintain a high level of the 3000 color for proper binding of the sand and for good adhesion to the asphalt. This is the base mix and is applied in two separate applications. After the second application has dried, the third and final color coat is to be applied. This third coat does not contain sand and consists of the following: (by Vol.)
Extol 3000 color One Part
Clean Water Up to five-tenths (0.5) part

After this third and final color coat has dried, mark the tandard tennis court dimensions using masking tape and then apply ETOL acrylic white line paint. (See specification ECC-008)

The condition of the asphalt must be addressed prior to application of new color. Correct any reflection or shrinkage cracks, raveling, spalling or upheavals and depressions. Insure that proper drainage exists and repair any low spots. There should be no standing water greater then one-eight (1/8'') inch. Previously applied looser peeling Color Coating must be removed.

Oil, grease or dirt must be removed. Usually, in the case of previously color coated tennis courts RESURFACER is not necessary.

When repairs have been completed proceed to squeegee apply a new color recoat using the following base coat formula (by volume):
Mix the following thoroughly in a Mortar type mixer:

- EXTOL 3000 Color – Two (2) parts
- Sand (90 mesh) – One (1) part
- Clean Water – Up to one (1) part

A runny mixture is desired that will squeegee well.

After this base coat has dried sometimes a second application is desirable. Normally, however, just a finally (top) coat is applied using the following mixture (by volume):

- EXTOL 3000 color One (1) part
- Clean Water Up to five-tenths (0.5) parts

After this top coat has been applied and has dried, mark the standard tennis court dimensions using masking tape and then paint brush or roller apply EXTOL White Line Paint. (See Spec. ECC-008)

EXTOL LINE PAINT is a formulated flat acrylic emulsion designed to define the outside dimensions

and service lines of tennis courts and other recreational sport courts. This product will not blister, erase, crack or peel and will not affect the bounce of a tennis ball or cause the ball to skid.

COVERAGE:

One gallon on EXTOL LINE PAINT will cover approximately 175 square feet (or a two-inch line 900 to 1200 feet long.) Estimate half gallon per double tennis court. (Note: Coverage varies with texture of surface)

The surface to be lined must be smooth, sound and clean of all dirt or oily materials. EXTOL LINE PAINT can be applied with paint brush or roller. Spraying is not recommended. Dilution is not recommended. Allow the tennis court to dry for at least twenty-four hours before play.

PRECAUTIONS:

PROTECT FROM FREEZING. Keep container tightly closed when not in use. Do not apply LINE PAINT in damp weather, if rain is imminent, or if surface or air temperature is below 50 F or above 140 F.

COLOR:

White is the preferred color for marked tennis court lines but other colors are also available. (Yellow, Blue, Green, Red, and Black)

Non-volatile by volume:	42 percent
Non-volatile by weight:	50 percent
Viscosity:	112 KU
Weight per gallon:	11.5 lbs
Minimum titanium dioxide content:	3 lbs. Per gallon

EXTOL BOND COAT is a specifically formulate 100 percent acrylic polymer designed to promote adhesion of EXTOL Color coatings to uncoated Portland cement.

RECOMMENDED USES:

To be used on new or old uncoated concrete tennis courts or other concrete recreational play surfaces as well as roof decks or walkways.

New concrete must cure a minimum of 28 days under normal conditions. The concrete should be etched with Muriatic Acid diluted with water (1:1 mix) and scrubbed wit ha stiff brush. If the solution does not foam when applied to the concrete surface increase the strength of the acid solution. After the foaming actions tops, flush the concrete thoroughly with clean water. Allow the concrete surface to dry for eight hours before applying Bond coat.

DILUTION AND COVERAGE:

Dilute one part EXTOL BOND COAT to equal part clean water. One gallon of this diluted mixture will cover approximately 400 square feet depending upon porosity and texture of the surface

METHODS OF APPLICATION:

BOND COAT may be applied by means of rubber squeegee, push broom or lambs wool applicator. Apply one coat. Do not allow build up of material.

Bond coat will dry in thirty minutes to one hour at 77 F (25 C) and 50 percent relative humidity. EXTOL COLOR COAT (ECC-001) may be applied to the BOND COAT after the BOND COAT has completely dried or when the BOND COAT is still tacky.

Non volatile by volume:	28 percent

Non Volatile by weight: 30 percent

Weight per gallon: 8.4 lbs.

LIMITATION:

BOND COAT must not be applied when surface or air temperature is below 50 F or above 140F or when rain or fog is imminent. DO not store BOND COAT in direct sunlight and keep containers tightly closed when not in use.

SCR5* is a polymeric additive to Portland cement to permit concrete to be cast in thin sections over a surface needing restoration. SCR5* results in better adhesion, upgrade wet and dry mechanical strengths and allows concrete to be cast in thin sections or even as coatings.

Virtually any area where concrete needs repair, e.g., Tennis courts, sport courts, concrete decks, walkways, driveways, curbs, roadways, seawalls, ramps, patios, pool decks, roofs, building foundations, etc.

In preparation, clean the entire surface; remove efflorescence, oil, dirt, grease or loose paint. Acid wash the concrete with one) (1) part Muriatic Acid, three (3) parts water. After washing, flush surface thoroughly with clean water. Then mix SCR5* Resin with Portland Cement, sand and water. (Be sure to use clean, washed, dry sand.) The following are squeegee and deep fill mix ratios:

		#16	#30	#60			
CEMENT	SAND	SAND	SAND	SCRR5*	APPX WATER		
BASE Squeegee	94 lbs	– – –	400#	– – –	5 gal.	8-10 gls.	
Finish Squeegee	94 lbs	– – –	100#	– – –	5 gal.	8 gls	

1/8th-1/4th inch gals.	94 lbs	400#	– – –	– – –	4 gal	608
** 1/4th-1/2 inch	94 lbs	400#	– – –	– – –	2 ¾	5-6 gals
**1/2-3/4 inch	94 lbs	400#			2 ¼	5-6 gals
** ¾-1 ¼ inch	94 lbs	400#	– – –	– – –	1 ¾	5-6 gals
** Over 1 ¼ inch	94 lbs	400#	– – –	– – –	1 ¼	5-

Note:

Equate 10 lbs. Of aggregate to mean 1 gallon by volume

- ** ½ of the sand volume can be replaced with same volume of pea gravel or ¾'' rock.
- For fills greater then ½ inch deep, prime the host surface and the placed cement with a dilution of two (2) parts water and one (1) part SCR5

Each SCR5* application must be dry prior to an additional application…usually one day is sufficient, but temperature and humidity will determine dry time.

***SCR5** is a product of Nicholas Distributing Co. and is available from EXTOL

EXTOL 3000 color system is a 100% Acrylic, all-weather, long wearing and non-glare coating designed for asphalt and concrete surfaces. Its unique blend of Acrylic polymers bonds tightly to asphalt or preconditioned concrete in all climates even during extreme temperature changes. Highest quality, colorfast pigment contained in EXTOL 3000 assures non-fading and non-chalking courts.

Interior or exterior surfaces of asphalt and concrete:
• Tennis courts
• Basketball Courts
• Play Grounds
• Walkways
• Sport Areas
• Recreational Areas

Ten standard color available—see color card for exact shades. The colors have been carefully chosen to minimize light reflection for best play and for pleasing appearance. Other colors are available upon special order.

EXTOL 3000 maybe applied by standard squeegee using a 50-70 durometer flexible rubber blade. Final coats may be followed with broom finish. Roller application of this product is also possible.

Vehicle: Water-borne 100% Acrylic
Viscosity: Semi Paste
Solids by weight: 48% ± 1
Weight per Gallon: 10.3lbs ± .1
Volatile Organic Content: 99 g/l
Sheen: Non-glare finish
Cure Time: At 77º (25º C) and 50% relative humidity with adequate
Ventilation: 30 minutes to one hour. RE-coat after 3 to 4 hours. Allow 24 hours dry prior to play.

Dilution:
This product is supplied in concentrated form and can be diluted at job site with water

SHELF LIFE:
Minimum of 2 years providing be store at room temperature.

COVERAGE:
80 to 120 square feet per gallon depending on surface texture and method of application. A tennis court, dimensions 60 feet by 120 feet, requires approximately 90 to 120 gallons of EXTOL 3000 for three coats. New surfaces require three coats, reword requires a minimum of two coats.

PACKAGING:
5-gallon pails and 30 gallon drums. Fifty-five gallon drums available on special order.

LIMITATIONS:
- Do not apply if surface temperature is less then 50 F or above 140 F
- Do not apply when rain or fog is imminent
- Allow asphalt to cure for a minimum of 14 days
- Allow concrete to cure for a minimum of 28 days
- Keep container tightly closed when not in use
- Do not store in direct sunlight
- Keep from freezing

CAUTION:
Not to be taken internally. Keep out of reach of children

SURFACE PREPARATION:
All surfaces whether preciously painted or not must be cured, sound and free from dirt, oil, wax, or grease and other foreign matter.

CLEAN UP:
Clean tools and pain spills with soap and water

SPECIAL NOTE:
EXTOL 3000 does not contain asbestos, mercury, or any other toxic or environmentally unsound material

DISCLAIMER OF WARRANTIES:
The statements contained herein or by any agents of EXTOL are presented for information. They are believed to be true and accurate and are intended to provide a guide only. Since workmanship, weather, construction equipment, quality of other materials and other variables affecting results are all beyond our control EXTOL does not make, nor are its agents authorized to make any warranty, guarantee or representation, express or implied, except that our materials shall conform to product specification distributed by the company. Any liability whatever of EXTOL is limited to replacement of the product. Claims regarding product defect must be received in writing within one (1) year from the date of shipment.