Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

June 24, 2011

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section **973**
Proposed Specification: **9730300 Structural Plastics - Materials.**

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

These changes are to correct typographical errors, which have been highlighted.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to SP965RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4280.

Sincerely,

Signature on file

Rudy Powell, Jr., P.E.
State Specifications Engineer

RP/dt
Attachment
cc: Gregory Jones, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Engineer

STRUCTURAL PLASTICS.
(REV 6-24-11)

ARTICLE 973-3 (of the Supplemental Specifications) Table 1 is deleted and the following substituted:

Table 1 Plastic Material Properties- SCL			
Density	ASTM D792	Skin	55-63 pcf
Density	ASTM D792	Core	48–63 pcf
Water Absorption	ASTM D570	Skin	2 hrs:<1.0% weight increase 24 hrs:<3.0% weight increase
Brittleness	ASTM D746	Skin	Brittleness temperature to be less than - 40 deg. C
Impact Resistance	ASTM D256 Method A (Izod)	Skin	Greater than 0.55 ft-lbs/in
Hardness	ASTM D2240	Skin	44-75 (Shore D)
Ultraviolet	ASTM D4329 UVA	Skin	500 hours<10% change in Shore D Durometer Hardness
Abrasion	ASTM D4060	Skin	Weight Loss: <0.03 oz Cycles=10,000 Wheel=CS17 Load = 2.2 lb
Chemical Resistance	ASTM D756 or ASTM D543	Skin/Core Sea Water Gasoline No. 2 Diesel	 <1.5% weight increase < 9.5% weight increase <6.0% weight increase
Tensile Properties	ASTM D638	Core	Minimum 2200 psi at break
Compressive Modulus	ASTM D695	Core	Minimum 40 ksi
Static Coefficient of Friction	ASTM D1894	Skin	Maximum 0.25, wet
Nail Withdrawal or Screw Withdrawal	ASTM D 6117	Skin/Core	Minimum 60 lb (nail) Minimum 400 lb (screw)

ARTICLE 973-3 (of the Supplemental Specifications) Table 2 is deleted and the following substituted:

Table 2 Plastic Material Properties FFRCL		
Density	ASTM D 792	50-65 pcf
Impact Resistance	ASTM D256 Method A	Greater than 2.0 ft-lbs/in

Table 2 Plastic Material Properties FFRCL		
	(Izod)	
Hardness	ASTM D2240	44-75 (Shore D)
Ultraviolet	ASTM D4329 (UVA)	500 hours <10% change in Shore D Durometer Hardness
Abrasion	ASTM D4060	Weight Loss: <0.03 oz Cycles = 10,000 Wheel = CS17 Load = 2.2 lb
Chemical Resistance	ASTM D756 or ASTM D543 Sea Water Gasoline No. 2 Diesel	 <1.5% weight increase <7.5% weight increase <6.0% weight increase
Tensile Properties	ASTM D638	Minimum 3000 psi at break
Static Coeffecient of Friction	ASTM D2394	Minimum 0.25, wet or dry
Nail Withdrawal or Screw Withdrawal	ASTM D 6117	Minimum 250 lb (nail) Minimum 400 lb (screw)

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