

IS SA2.5 NECESSARY?

OWEN JONES

ROYAL COATINGS, INC.
BELLE CHASSE, LA USA



ROYAL COATINGS, INC.

- A TWENTY - THREE YEAR OLD COMPANY LOCATED NEAR NEW ORLEANS, LA
- MANUFACTURER OF A VARIETY OF MARINE AND INDUSTRIAL, COATINGS. ALL OF OUR PRODUCTS ARE NON-HAZARDOUS, NON-FLAMMABLE, AND EASY TO APPLY. OUR CHEMISTRIES ARE EITHER SOLVENT FREE EPOXIES OR SINGLE COMPONENT WATER BASED VINYLs, ACRYLICS, OR ASPHALTIC PAINTS.
- APPROXIMATELY FIFTEEN YEARS AGO, RESEARCH STARTED TO ASSESS THE POSSIBILITY OF USING SOLVENT FREE 100% SOLIDS EPOXIES OVER HYDRO-BLASTED SURFACES FOR TANK LININGS

- OUR RESEARCH AT THAT TIME SHOWED THAT EXISTING HIGH PERFORMANCE BALLAST TANK EPOXIES WERE:

- ❖ FLAMMABLE

- ❖ HIGH ODOR

- ❖ TOXIC

- ❖ CURES VERY BRITTLE

OBJECTIVE

OUR GOAL WAS TO CREATE A TANK COATING SYSTEM WITH THE FOLLOWING CHARACTERISTICS:

- 1) 100% SOLIDS TWO COMPONENT EPOXY
 - ✓ NO SOLVENTS, NO WATER
- 2) EXCELLENT ADHESION
- 3) VERY SURFACE TOLERANT
 - ✓ TIGHT RUST, HIGH HUMIDITY
- 4) PERMANENTLY FLEXIBLE (MORE THAN STEEL)
- 5) SPRAYABLE WITH STANDARD AIRLESS
- 6) CURE IN COLD TEMPERATURES (DOWN TO 3° C)
- 7) OUTSTANDING LONG TERM WATER RESISTANCE
- 8) NO SANDBLASTING NECESSARY
- 9) NON-FLAMMABLE AND NON-HAZARDOUS FOR SHIPPING
- 10) LIGHT COLOR
- 11) VERY LITTLE OR NO ODOR
- 12) ABS AND LLOYD'S APPROVAL

COMPARISON CHART

EASYPRIME/EASYFLEX vs SOLVENTBORNE

	EasyPrime	EasyFlex	A	B	C
DFT ¹	75	300	300	300	300
Adhesion ²	119.6	76.7	50.4	55.9	74.6
Elongation	>34%	>34%	<6%	11.4%	6%
Reverse Impact ³	9.72	3.05	0.11	0.34	0.79
Direct Impact		4.97	0.79	2.37	3.96
Water Absorption	0.93	3.36	2.07	4.50	5.02
Water Vapor Transmission ⁴	.0043	.0052	.0081	.0051	.0048
2000 hr salt fog	Pass	Pass	Fail	Fail	Fail

¹ microns

² kg/cm²

³ joules

⁴ Perm-cm



APPLICATION COMPARISONS

EASYPRIME/EASYFLEX

Surface Preparation	Hydro blast (ST.2)	Solvent Driven SA2.5
POT LIFE	ONE HOUR OR LESS	2 Hours+
MIXED VISCOSITY	HIGHER	LOWER
ADJUSTING VISCOSITY	HEAT	SOLVENTS
PUMPS	56:1 OR BETTER	30:1
CURE TIMES	6 – 8 HOURS	4-8 HOURS
MINIMUM RECOAT TIME	TACKY DRY	VARIABLES
RUNS AND SAGS	LEAVE	GRIND OUT
HIGH FILM BUILD	EASY	CAN BE DIFFICULT
PRODUCTIVITY	IMPROVED	SAFETY HAZARD
INSTALLED COST	DEFINITE SAVINGS	
RETURN TO SERVICE	FASTER	SLOWER
BALLAST TANK REPAIRS AT SEA	MORE PRACTICAL	DANGEROUS
REGULATORY	ELIMATED	DEPENDING ON STATE
WORKER COMFORT	IMPROVED – NO DANGER NO ODOR	NOT GOOD
EDGE RETENTION	IMPROVED	



TOTAL INSTALLED COST

SURFACE PREPARATION

Hydroblast ST2

SA2.5

LOST REVENUE

LESS TIME

MORE TIME

APPLICATION AT SEA

PRACTICAL
COST EFFECTIVE
SAFE

DIFFICULT
VERY EXPENSIVE
DANGEROUS

COST PER LITER

COMPETITIVE

LIFE EXPECTANCY

SAME

