CHROM BRITE - 160

Chrom Brite - 160 can be used to extend the range of glass flake coatings beyond the traditional high film thickness applications in offshore and similar aggressive environments.
Chrom Brite - 160 can be used in coatings with a dry film thickness (DTF) of 500 microns or less. These thinner coatings are economically suitable for a broad range of applications which could not consider traditional flake coatings; examples of these include, rail and foot bridges, civil engineering structures and fluid storage facilities.

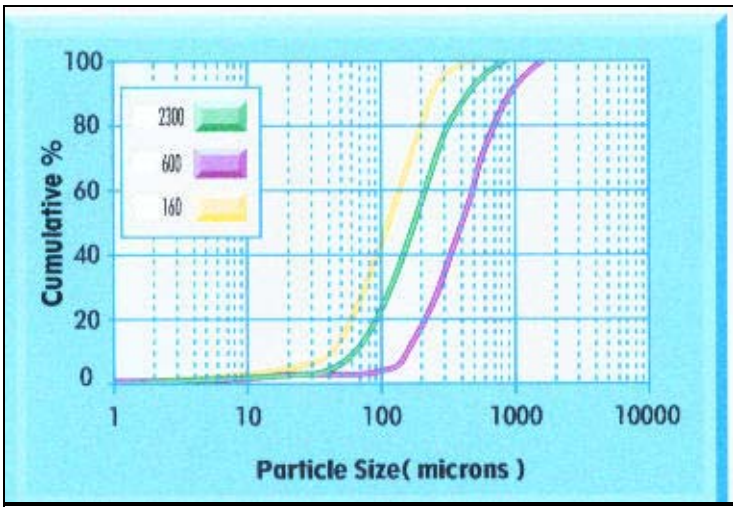
CLASSIFICATION OF CHROM BRITE - 160

Type	Non-Surface treated	Surface treated
Product code	2300	2300A
Glass Composition	C glass	C glass
Specific gravity	2.5	2.5
Thickness (μm)	Ave. 1-3	Ave. 1-3
>1700μm	0	0
1700~300	80 - 20	80 - 20
300~150		
150~45	20 - 60	20 - 60
<45μm	25 or less	25 or less
Loss on ignition(%)		0.15 ± 0.10
Surface Treatment agent		Aminosilane

	C glass
2	Glass flake thickness (Nominal μ)
300	Particle size (Nominal μ)
A	Type of surface treatment

Surface Treatment	Treatment Code
Acrylsilane	N
Aminosilane	A

PARTICLES SIZE DISTRIBUTION AND BULK DENSITY



	Bulk density (g / cc)	Bulk density after shaking (g / cc)
2300	0.16	0.25
600	0.20	0.30
160	0.40	0.65
015	0.75	1.15

THE BENEFITS OF CHROM BRITE - 160

ECONOMIC

Many structures are traditionally painted with several coats of systems containing micaceous iron oxide (MIO) and involve costly additional processes such as liquid metal spraying of zinc or aluminum prior to coating.

ENVIRONMENTAL

The need to reduce the environmental impact of coatings has never bean greater. Chrom Brite - 160 can be used in formulations with reduced volatile organic compounds (VOC) in order to meet environmental requirements. To reduce evaporation from tanks or aesthetic impact many large structures are now required to be coated in specific colours.

HEALTH AND SAFETY

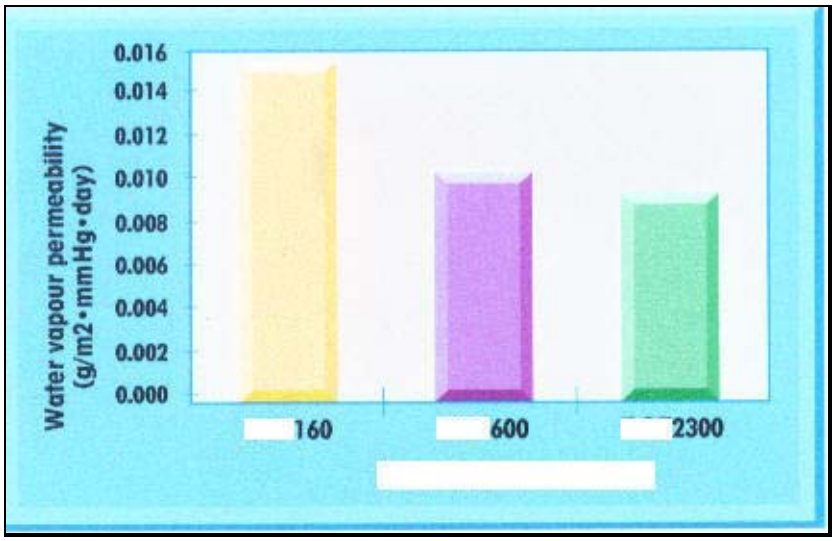
Health and safety regulations are becoming increasingly demanding. Many traditional coating systems e.g. coal tar epoxy can contain harmful substances which are no longer permitted in coatings. Coatings containing Chrom Brite – 160 can be used to formulate cost efficient replacements for many traditional systems.

ADVANTAGES OF CHROM BRITE - 160

- Extend life of protective coating. Glass flakes dispersed through the coating prevent the ingress of water vapour and chemical solutions
- Improve wear resistance. Glass flakes increase the hardness of epoxy and polyester resin coatings, giving higher resistance to surface wear.
- Prevention of cracking and peeling. Glass flakes provide a thermal stabilization layer in the protective coating and greatly reduces the risk of cracking and peeling of the coating due to thermal shock
- Chemical resistance. Glass flake has a greater resistance to chemical attack.

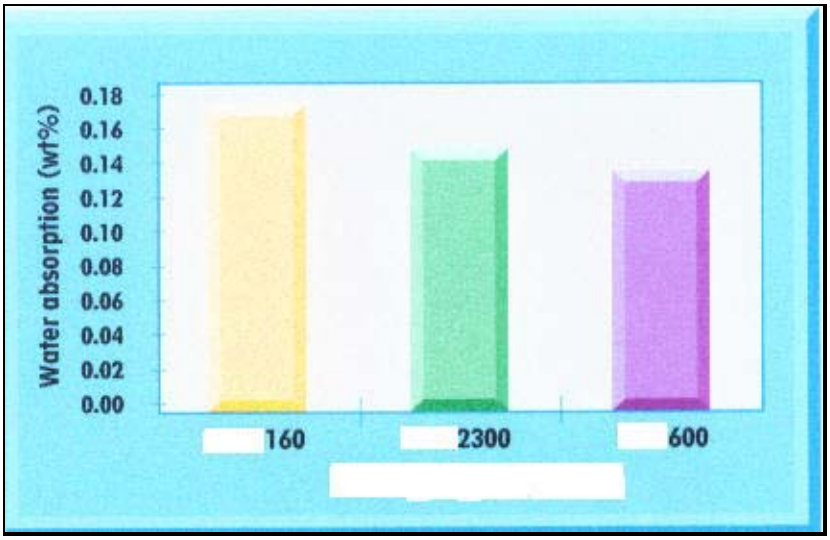
CHROM BRITE - 160 IN ANTI-CORROSION COATINGS

WATER VAPOUR PERMEABILITY (JIS Z0208)



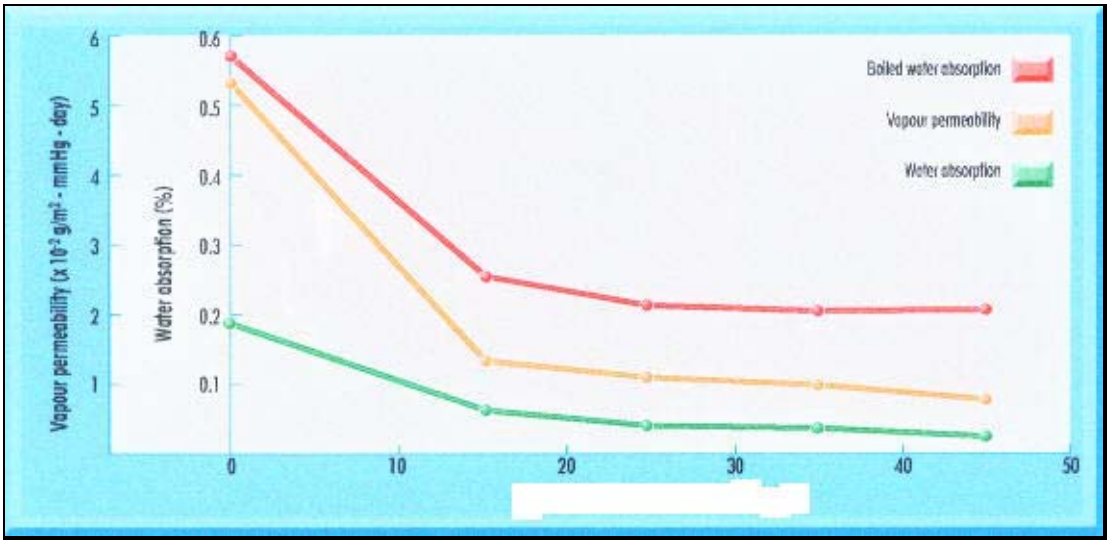
TEST PIECE
RESIN: VINYL ESTER A
RIPOXY R802
THICKNESS OF LINING LAYER: 1mm
GLASS FLAKE CONTENT: 30wt%

WATER ABSORPTION

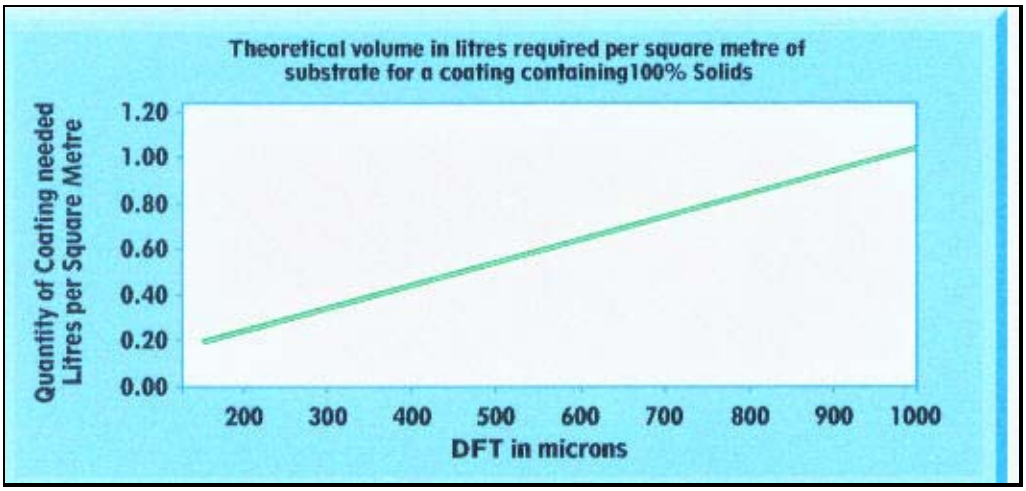


TEST PIECE
RESIN: VINYL ESTER A
RIOPOXY R802
GLASS FLAKE CONTENT: 35wt%
TEST METHODE: IMMERSED IN WATER FOR 24 HR AT 23*C

QUALITATIVE EFFECT OF FLAKE ADDITION LEVEL



REDUCED DRY FILM THICKNESS (DTF)= REDUCED SYSTEM COST



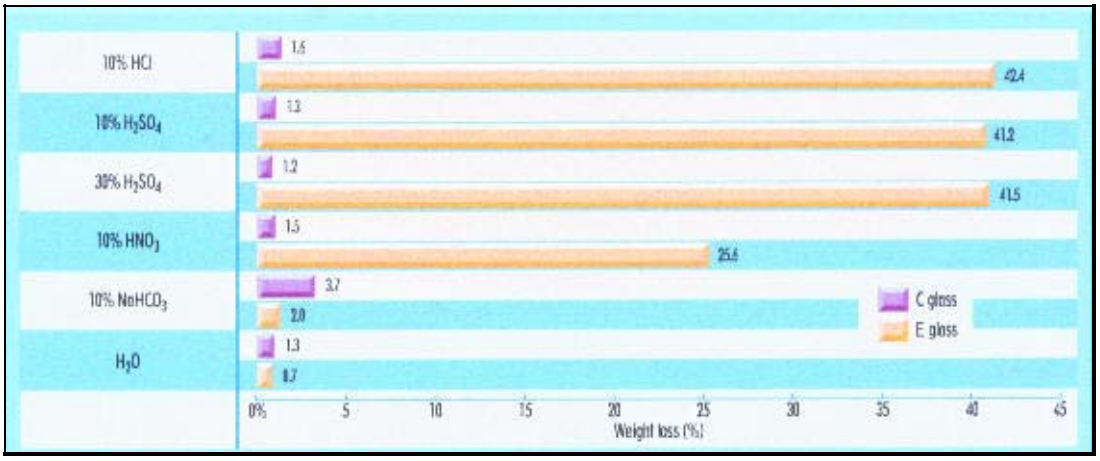
CHROM BRITE – 160 ENABLES HIGH PERFORMANCE TO BE ACHIEVED AT REDUCED DFT
THIS REDUCES COATING COSTS AND SAVES APPLICATION TIME

%solids	DFT in microns 200	300	400	500	600	700	800	900	1000
100.00%	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
80.00%	0.25	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.25
60.00%	0.33	0.50	0.67	0.83	1.00	1.17	1.33	1.50	1.67

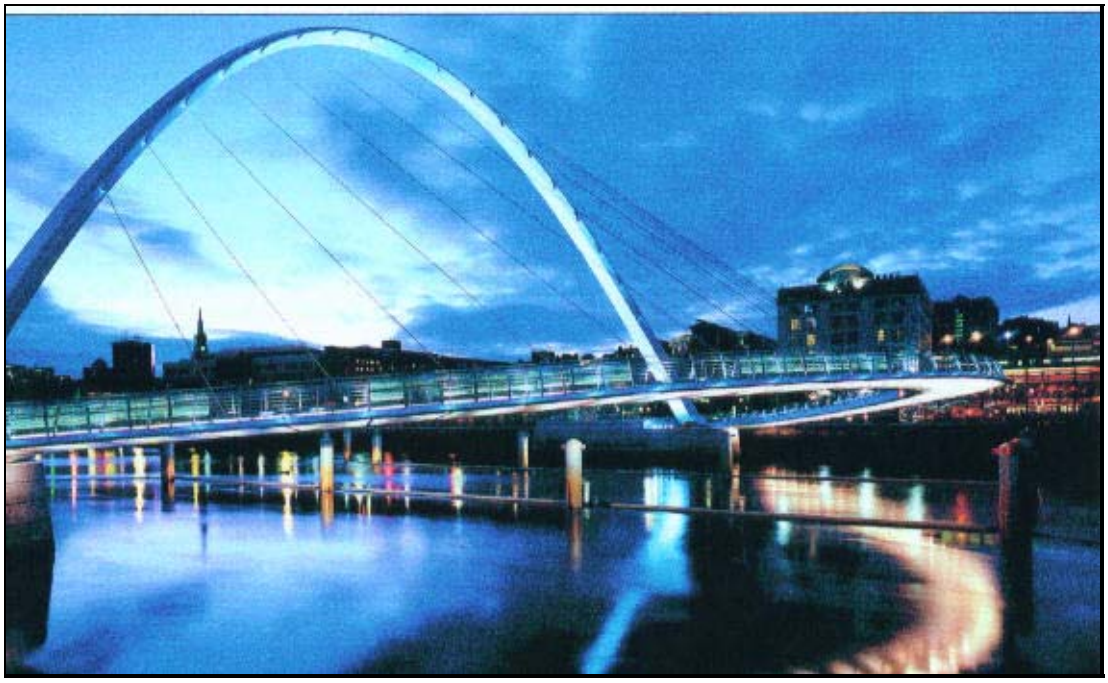
GLASS COMPOSITION

Type of glass	SiO_2	Al_2O_3	CaO	MgO	B_2O_3	Na_2O+K_2O	ZnO
C glass (%)	65~72	1~7	4~11	0~5	0~8	9~13	0~6
E glass (%)	52~56	12~16	16~25	0~6	5~13	0~0.8	----

CHEMICAL RESISTANCE. C GLASS HAS GREATER RESISTANCE TO CHEMICAL ATTACK, COMPARED TO OTHER TYPES OF GLASS, AS SHOWN ABOVE



COMPARATIVE WEIGHT LOSS WHEN IMMERSED IN CHEMICAL SOLUTION AT 80*C FOR 24 HRS



COATINGS USING SPARKLE BRITE CAN ACHIEVE SAVINGS IN LIFE CYCLE COST OVER TRADITIONAL COATINGS FOR LARGE STRUCTURES SUCH AS BRIDGES