

CHEMICAL RESISTANCE OF AMBIENT TEMPERATURE CURED BELZONA® 1391 APPLIED TO MILD STEEL RODS

	CONDITION OF BELZONA® 1391 AFTER :					
	1 DAY	5 DAYS	11 DAYS	26 DAYS	5 WEEKS	10 MONTHS
50% Sulphuric acid	O.K.	O.K.	D	D	D	D
20% Phosphoric acid	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
20% Nitric acid	D	D	D	D	D	VD
20% Acetic Acid	CB	—	—	—	—	—
10% Lactic Acid	O.K.	CB	—	—	—	—
25% Ammonia Solution	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
40% Sodium hydroxide	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
20% Sodium hydroxide	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Meths	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Ethylene Glycol	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Ethyl Acetate	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Methylene Chloride	CB	—	—	—	—	—
Trichloroethane	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Toluene	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Methyl Ethyl Ketone	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Bleach	O.K.	O.K.	D	D	D	O.K.
Acetone	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
20% HCl	SD	SD	SD	D	D	D
Ethanol Amine	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Diethanol Amine	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Triethanolamine	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.

NOTES : 1. Test Temperature 22–25°C
2. Cure schedule : 7 days at 22°C

KEY : CB Complete Breakdown
D Discoloured
SD Slight Discolouration
VD Very Discoloured

S.Daly
28/02/95
SD-LMW-7676A

CHEMICAL RESISTANCE OF BELZONA® 1391 AT ELEVATED TEMPERATURES

	TEMP °C	CONDITION OF BELZONA® 1391 AFTER :					
		24 HOURS	48 HOURS	9 DAYS	20 DAYS	3 MONTHS	10 MONTHS
Ethanolamine	90	O.K.	SD	D	D	D	*
	70	O.K.	O.K.	SD	D	D	*
	50	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
15% Sulphuric acid	90	CB	—	—	—	—	—
	70	SD	D	D	CB	—	—
	50	O.K.	O.K.	SD	CB	—	—
15% Nitric acid	90	CB	—	—	—	—	—
	70	O.K.	SD	B	Bf	—	—
	50	O.K.	SD	D	Bf	—	—
15% Hydrochloric acid	90	SD	D	Bf	—	—	—
	70	O.K.	SD	D	D	D	*
	50	O.K.	SD	D	D	D	O.K.
Diethanolamine	90	O.K.	O.K.	O.K.	O.K.	O.K.	*
Triethanolamine	90	O.K.	O.K.	O.K.	O.K.	O.K.	*
15% Sodium hydroxide	90	O.K.	O.K.	SD	SD	*	*

NOTES : Samples were post cured for :
 2 hours at 100°C
 2 hours at 160°C

* Test terminated

KEY : B Blistered
 Bf Blistered (fail)
 CB Complete Breakdown
 D Discolouration
 SD Slight Discolouration

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CHEMICAL RESISTANCE OF BELZONA® 1391, 1321 AND 4311 AT 90°C

	BELZONA®	CONDITION OF COATING AFTER :					
		24 HOURS	48 HOURS	9 DAYS	20 DAYS	56 DAYS	6 MONTHS
Ethanolamine	4311 1321 1391	Blistered (fail) Blistered (fail) O.K.	Blistered (fail) Blistered (fail) Slight discolouration	Blistered (fail) Blistered (fail) Discoloured	Blistered (fail) Blistered (fail) Discoloured	— — Discoloured	— — Discoloured
Triethanolamine	4311 1321 1391	O.K. O.K. O.K.	O.K. O.K. O.K.	O.K. O.K. O.K.	O.K. O.K. O.K.	O.K. O.K. O.K.	O.K. O.K. O.K.
15% Sodium hydroxide	4311 1321 1391	O.K. O.K. O.K.	O.K. O.K. O.K.	O.K. O.K. Slight discolouration	O.K. O.K. Slight discolouration	* * *	* * *
15% Hydrochloric acid	4311 1321 1391	O.K. O.K. Slight discolouration	Slight discolouration O.K. Discoloured	Discoloured Slight discolouration Blistered (fail)	Discoloured Blistered (fail) Blistered (fail)	Discoloured — —	Discoloured — —
15% Nitric acid	4311 1321 1391	Complete breakdown Complete breakdown Complete breakdown	— — —	— — —	— — —	— — —	— — —
15% Sulphuric acid	4311 1321 1391	O.K. Complete breakdown Complete breakdown	Breakdown — —	Complete breakdown — —	Complete breakdown — —	— — —	— — —

NOTES : All samples post cured for :
 2 hours at 100°C
 2 hours at 160°C

* Test terminated at 6 weeks.

CHEMICAL RESISTANCE OF POST CURED BELZONA® 1391 APPLIED TO MILD STEEL RODS

	CONDITION OF BELZONA® 1391 AFTER :							
	1 DAY	5 DAYS	11 DAYS	20 DAYS	32 DAYS	75 DAYS	3 MONTHS	12 MONTHS
50% Sulphuric acid	SD	D	D	D	D	D	D	D
20% Phosphoric acid	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	D	D
20% Nitric acid	SD	D	D	D	D	SBI	SBI	F
20% Acetic Acid	O.K.	SBr	Br	Br	Br	—	—	—
10% Lactic Acid	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
25% Ammonia Solution	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
40% Sodium hydroxide	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
20% Sodium hydroxide	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Methanol	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Ethylene Glycol	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Ethyl Acetate	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Methylene Chloride	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Trichloroethane	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Toluene	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Methyl Ethyl Ketone	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Bleach	SD	D	D	D	D	D	D	D
Acetone	O.K.	O.K.	O.K.	O.K.	OK.	O.K.	O.K.	O.K.

NOTES : 1. Test Temperature 22–25°C

2. All test samples were post cured for :
2 hours at 100°C
2 hours at 160°C

KEY :	B Blistered	SD Slight Discolouration
	Br Breakdown	SBI Slight Blistering
	D Discoloured	SBr Slight Breakdown
	F Failed	