

TECHNICAL DATA SHEET

supersedes previous issue dated 23/01/04

TZ88/ABC**
PIGMENTED MATT POLYURETHANE TOPCOAT

Colours available:	hiding pigments A1 - white A2 - ochre A5 - black A8 - brick red	semi-transparent pigments B2 - red B3 - amaranth B6 - dark blue B8 - green B9 - violet C4 - lemon yellow C7 - gold yellow C9 - orange	pigments containing lead A9 - orange B4 - lemon yellow B7 - golden yellow
Gloss level:	25 gloss \pm 2 For A1 white only: 10, 25, 35 and 50 gloss.		
Area of use:	Flat parts, profiles, turned parts.		
Method of use:	Airmix and airless spray guns, curtain coater.		
Mixing procedure:		by weight (kg)	by volume (l)
	Part A	TZ88XX/ABC	100
	Part B (hardener)	TH 720 (*)	50
	Thinner	DT 1150	5-30
			see Table 1

(*) TH 759 may be used as an alternative to TH 720 in hot-air forced drying systems to provide faster drying and higher surface hardness.

Technical characteristics

Solids content (%):	Part A: See Table 1
Specific gravity (kg/l):	Part A: See Table 1
Viscosity (DIN 4 at 20°C):	Part A: See Table 1 A + B : 21" \pm 2"

Substrate preparation

With pigmented polyurethane or polyester basecoats.

General characteristics

Pot-life:	4 hours		
Recommended application weight (g/m ²):	Minimum 80, maximum 150.		
Drying time (100 g/m ² at 20°C):		Inorganic pigments (see Table 2)	Organic pigments (see Table 2)
	Dust free	5'-10'	10'-15'
	Touch dry	30'-40'	45'-60'
	Stackable	4 hours	6 hours
Forced drying: (100 g/m ²)		Inorganic pigments	Organic pigments
	Flash off	10'	15'
	50°C	40'	60'
	Cooling	10'	15'
Shelf-life:	If the product is properly stored, shelf-life is unlimited. After long periods of storage, always check homogeneity and stir well before use to eliminate any possible sediment.		

All colours in the TZ 88**/ABC series are fast drying and have excellent surface hardness. TZ 88**/ABC topcoats are ideal for coating flat panels on automatic lines with curtain coaters and drying ovens.

In spray applications, the TZ 88**/ABC series displays excellent applicability, complete absence of uneven matting and excellent hiding power on edges.

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In case of application on large surfaces with airless spray guns (either with fixed guns or manual systems), to optimise application and avoid uneven matting particularly with strong organic pigments, dilution should be 5% approx.

With airmix spray guns, there are no particular problems and dilution could be from 20 to 30% depending on nozzle size and air pressure.

During summer time or in tropical areas, a slower drying thinner such as DT 1146 is suggested.

Warning

Both organic and inorganic pigments are used for the preparation of the TZ 88**/ABC series. The organic based coatings have longer drying times, lower hardness and generally lower hiding power than the inorganic based coatings.

Table 2 summarises some of the characteristics of the various colours.

Note that some of them display poor light fastness when blended with white to obtain pastel colours, and that this worsens with increasingly pale colours.

When used on their own or blended to obtain strong colours, they show good light fastness.

When preparing colours requiring the use of black, use **only TZ 8825/A5**, which has been specially designed for blends. TZ 88**/57 is totally unsuitable.

All TZ 88**/ABC colours are perfectly intermixable in the WOOD-COLOR system.

It is not sufficient to shake the can before using. The contents must be stirred thoroughly.

TZ 88**/ABC pigmented topcoats are not suitable for outdoor use.

Problem of colour alteration with light

Even when non-yellowing hardeners are used, the lighter shades are liable to undergo colour change over time.

Equipment exists for determining to a good degree of accuracy how long it will take for the colour of coatings to change and the extent of the change.

End users should have the light fastness of these pigmented topcoats evaluated to determine whether or not they are suitable for their requirements.

Arch laboratories can carry out this assessment with the utmost objectivity, although it would be even better for the user to contact an independent testing laboratory.

TABLE 1

Colour	Solid Content (% ± 2)	Specific Gravity (kg/l _t ± 0.030)	Viscosity (sec DIN 4 at 20° C)	% of hardener	
				by weight	by volume
A1 WHITE	66	1.293	120 ± 5	50	65
A2 OCHRE	58	1.125	115 ± 5	50	55
A5 BLACK	52	1.032	90 ± 5	50	50
A8 BRICK RED	58	1.165	115 ± 5	50	60
A9 ORANGE	60	1.175	120 ± 5	50	60
B2 RED	52	1.045	125 ± 5	50	50
B3 AMARANTH	52	1.045	100 ± 5	50	50
B4 LEMON	60	1.180	120 ± 5	50	60
B6 DARK BLUE	53	1.041	110 ± 5	50	50
B7 YELLOW	60	1.202	120 ± 5	50	60
B8 GREEN	53	1.047	110 ± 5	50	50
B9 VIOLET	52	1.029	100 ± 5	50	50
C4 LEMON YELLOW	57	1.180	115 ± 5	50	60
C7 GOLDEN YELLOW	55	1.202	115 ± 5	50	60
C9 ORANGE	54	1.175	115 ± 5	50	60

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TABLE 2

Chemical nature	Hiding power	Light fastness	
		Alone	Blended with White
A1 Inorganic	Excellent	Excellent	-----
A2 Inorganic	Excellent	Excellent	Excellent
A5 Organic	Excellent	Excellent	Excellent
A8 Inorganic	Excellent	Excellent	Excellent
A9 Inorganic	Excellent	Good	Good
B2 Organic	Poor §	Good	Poor *
B3 Organic	Poor §	Good	Poor *
B4 Inorganic	Adequate §	Good	Good
B6 Organic	Poor §	Excellent	Excellent
B7 Inorganic	Adequate §	Good	Good
B8 Organic	Poor §	Excellent	Excellent
B9 Organic	Adequate §	Excellent	Excellent
C4 Inorganic	Adequate §	Good	Good
C7 Organic	Poor §	Good	Good
C9 Organic	Poor §	Good	Good

* Use A8 in pastel colours.

§ Apply on top of basecoat of similar colour. It may be necessary to apply more than one coat.