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THERMAL PAINT NAME/COLOUR	GREEN	ORANGE	RED

A colour change can be determined after 10 mins of heating:-	White 458°C	Yellow 550°C	White 630°C
Highest temperature the paint can be subjected to without a colour change is:-	180°C	475°C	425°C
Vehicle Type:-	Acrylic Complex		
Coverage:-	1 litre covers 6 square metres		
Flash Point:-	39°C	41°C	39°C
Finish:-	Eggshell – 2 coats required		
Solvent/Thinners:-	Methoxy-Propyl-Acetate	Propylene Glycol Methyl Ether Acetate (PMA)	
% of Solids by Weight:-	40%	74%	52%
% of Liquid by Weight:-	60%	26%	48%
Average Drying Time 1st Coat:-	Touch Dry in 15-30 minutes		
Average Drying Time 2nd Coat:-	Allow a minimum of 20 minute before conducting test		
Weathering:-	Excellent for long term use. This paint will withstand the most arduous of environments.		

APPLICATION
<u>All Paints</u> Apply to a blast cleaned and de-greased surface. No primer is necessary unless for long term tests. Apply first coat, allowing to touch dry for 15-30 minutes then apply the second coat and allow to dry for 20 minutes after which gradually raise the surface temperature. If not possible, then allow paint to dry thoroughly before conducting tests. <u>Red Paint only</u> It is desirable to pre-heat the paint before conducting the test, by raising the surface temperature to 250°C. This in effect dries off the solvent and fuses the paint to the surface, giving a perfect bonding. <u>All Paints</u> Removal of the paint can only be achieved by using the solvents or an abrasive disc.

TIME TEMPERATURE EFFECTS
As this thermal paint has a time effect, consideration must be given to the important aspect when using this paint for more than 10 minutes. It can be established by calculation that after a period of 50 hours running the rate of change is negligible and practical tests show that the highest temperature at which the paint can be used without a colour change taking place is 180°C for the Green paint and 425°C for the Red paint. This is known as the Safe Constant running Temperature. Below are measurements made during tests under laboratory conditions.

Paint Name Green		Paint Name Orange		Paint Name Red	
1st Transitional Colour Change White		1st Transitional Colour Change Yellow		1st Transitional Colour Change White	
1 minute	549°C	1 minute	591°C	1 ½ minutes	725°C
2 minutes	513°C	5 minutes	571°C	3 minutes	670°C
5 minutes	478°C	10 minutes	550°C	5 minutes	640°C
10 minutes	458°C	1 hour	526°C	10 minutes	630°C
20 minutes	440°C	24 hours	509°C	20 minutes	610°C
30 minutes	429°C			1 hour	600°C
40 minutes	422°C	10 minutes	550°C	2 hours	582°C
1 hour	411°C	20 minutes	543°C	3 hours	570°C
1 ½ hours	401°C	30 minutes	540°C	5 hours	556°C
2 hours	394°C	1 hour	534°C	8 hours	550°C
3 hours	385°C	2 hours	529°C	25 hours	520°C
4 hours	378°C	3 hours	525°C	60 hours	500°C
5 hours	358°C	4 hours	523°C		
10 hours	343°C	5 hours	521°C		
20 hours	335°C	10 hours	515°C		
30 hours	329°C	20 hours	509°C		
40 hours	300°C	30 hours	506°C		
172 hours	300°C				
SCRT without a colour change:-	180°C predicted not proven	SCRT without a colour change:-	475°C predicted not proven	SCRT without a colour change:-	425°C predicted not proven