

TECHNICAL REPORT

Thermal conductivity measurment

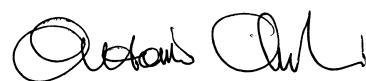
Order	n.0219E of 20.05.2019
Customer	Di Maria Paint spa
Description	The document describes the measurment of thermal conductivity on Di Maria paint named Bisaten Thermal Paint. Only for comparison are reported another standard paint(other competitor). The measument is compliance on ASTM D7984 - 16
Delivery data	17/06/2019
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Distribution	Dott.ssa Melania Di Maria
Id. number document	16509 DI MARIA

DETAILS	
Type of measurment	Thermal conductivity analysis
Instrument	TCi Thermal Conductivity Analyzer
Reference	ASTM D7984 - 16 Standard - Test Method for Measurement of Thermal Effusivity of Fabrics Using a Modified Transient Plane Source (MTPS) Instrument
Method	The default C-Therm TCi Thermal Conductivity Analyzer employs the Modified Transient Plane Source (MTPS) technique in characterizing the thermal conductivity and effusivity of materials. It employs a one-sided, interfacial heat reflectance sensor that applies a momentary constant heat source to the sample.

SAMPLE DETAILS			
Id. samples	Preparation date	Thickn.	Note
Bisaten Thermal Paint	06.06.2019	5mm	Dried 40°C – 48 H before to analyze
Standard paint	06.06.2019	5mm	Dried 40°C – 48 H before to analyze

RESULTS									
Bisaten Thermal Paint.									
#	Repeat	Sensor ID	Start Time	Effusivity $\frac{W}{(m^2)^{\circ}K}$	Conductivity (W/mK)	Ambient T (°C)	DeltaT (°C)	V0 (mV)	
1	1	T185	15:46:32	106	0.070	34,80	1,17	2.456,26	
2	1	T185	15:47:38	111	0.070	34,73	1,16	2.455,76	
3	1	T185	15:48:43	120	0.070	35,33	1,16	2.453,97	
4	1	T185	15:49:48	117	0.070	35,48	1,16	2.453,62	
5	1	T185	15:50:53	122	0.070	35,44	1,16	2.453,82	

Standard paint									
#	Repeat	Sensor ID	Start Time	Effusivity $\frac{W}{(m^2)^{\circ}K}$	Conductivity (W/mK)	Ambient T (°C)	DeltaT (°C)	V0 (mV)	
1	1	T185	15:16:22	2,247	2.680	39,79	0,46	2.464,37	
2	1	T185	15:17:27	644	0.290	32,58	0,85	2.443,76	
3	1	T185	15:18:32	673	0.310	32,26	0,83	2.442,52	
4	1	T185	15:19:37	700	0.340	32,30	0,83	2.441,80	
5	1	T185	15:20:42	706	0.340	32,20	0,82	2.441,72	
6	1	T185	15:21:48	710	0.340	32,22	0,83	2.441,08	
7	1	T185	15:22:53	706	0.340	32,32	0,83	2.440,51	



eng. Antonio Chiechi