0575

DECICOAT™ T35

water-based, sprayable thermal coating

Decicoat T35 is a water-based spray-on thermal insulation coating specially formulated with anti-condensation and corrosion protection properties. It has been developed to meet market requirements in the rail, off-shore, marine, chemical, petroleum, automotive and construction industries.

Unlike traditional insulation materials like glass wool or mineral fibre, Decicoat T35 provides a seamless and sprayable application with 100% coverage. This means Decicoat T35 successfully prevents thermal bridging.

With excellent adhesion to most metals, Decicoat T35 bonds flush with substrates even around uneven surfaces. Depending on the application requirement, it can be used as an independent solution, or to complement other insulation materials, when added protection from condensation and corrosion are required for overall thermal performance.

Condensation is associated with relative humidity, air pressure and occurs when temperature differentials between two areas pass over the 'dew point' threshold. With the right coating thickness, Decicoat T35 regulates surface temperatures of the component by inhibiting thermal transfer to effectively control the onset of condensation.

Near odourless, it complies with international fire codes for rail and marine applications, exhibiting a low spread of flame, low heat release, low toxicity and low smoke release during combustion.

SPECIFICATIONS

Colour	White
Available	Pail: 19 L, 5 gal
	Drum: 200 L

applications

- Marine vessels: interiors of superstructures and hulls in workboats, luxury yachts and super-liners.
- Rail applications: carriage ceiling and walls
- Industrial: on the underside of metal deck roofing, metal wall cladding or shipping containers
- Applications exposed to high humidity and temperature fluctuations
- Oil & gas/offshore: interior structures of habitable areas and LNG pipelines
- Automotive: heavy vehicles, buses, trailers, tractors
- Applied in conjunction with traditional fibrous or foam insulation to improve overall thermal insulation systems
- Domestic: pipes, walls, interiors

features

- Thermal insulation, excellent anti-condensation and corrosion protection
- Eliminate thermal bridging
- Complies to international standards - low spread of flame, smoke and toxicity
- Manufactured under ISO 9001 Quality Systems
- Use in conjunction with other insulation materials
- Decrease interior sound levels by damping panel resonance
- Lightweight, non-sag formulation with excellent adhesion to various metal substrates
- Long-lasting, cures to a hard chip, UV and moisture-resistant finish
- Water-based compound – no volatile solvents or thinners required for cleaning - low odour environment
- No primer required - easy, fast and seamless application
- Sprayable - air gun or airless spray system

PRODUCT SPECIFICATIONS

Colour	UOM	Weight	Consumption for 1 mm (0.04 in) DFT. Includes allowance for up to 10% material shrinkage	Service temp range (max short term)	Application guidance
White	19 L (5 gal) pail 200 L drum	0.39 kg/m²/mm DFT (0.08 lb/ft²/mm DFT)	1.1 L/m² (0.027 gal/ft²)	-40 °C to 120 °C (-40 °F to -248 °F)	Minimum recommended application: 0.5 mm DFT General purpose installation: 2 mm DFT Other thicknesses as per specification or requirement

To achieve a desired dry film thickness, provision for material shrinkage of up to 10% on average should be included when applying a wet coating.

Storage: Store between 10 °C to 45 °C (50 °F to 113 °F).

Shelf Life: 24 months from receiving goods (stored under recommended conditions).

MATERIAL PROPERTIES

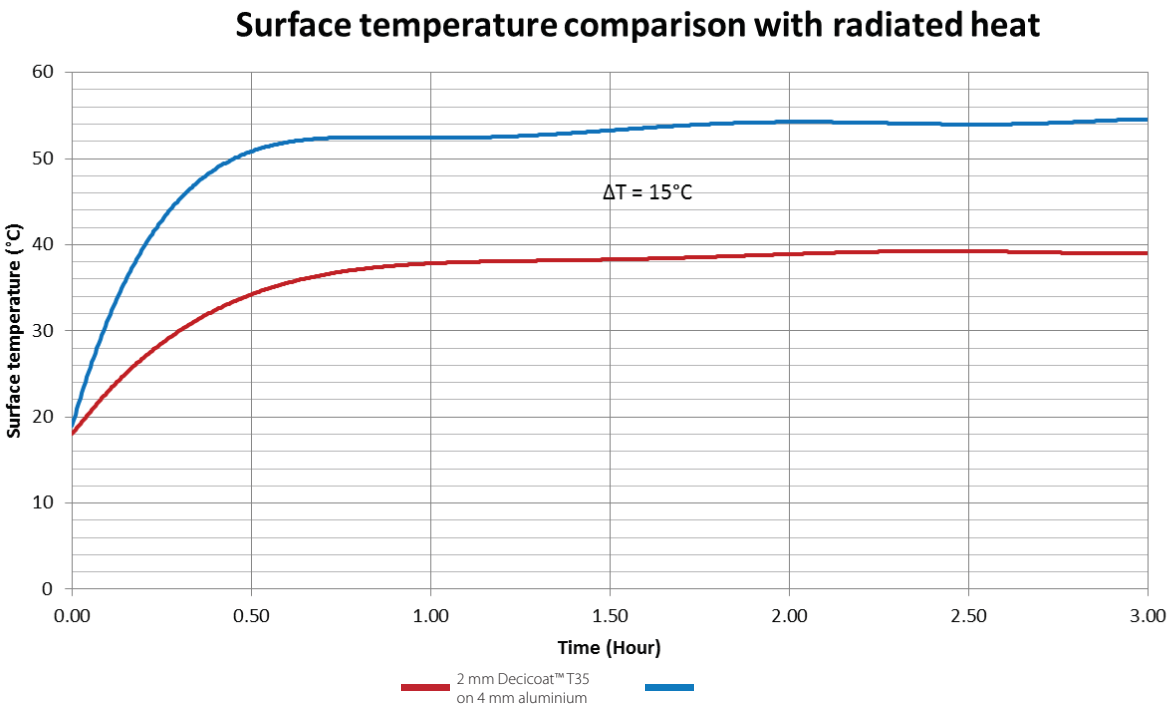
Test method	Property	Report	Results
IMO FTP Part 5	Surface flammability	376675	Complies for Bulkhead, walls and ceiling linings up to 2 mm thickness on metallic substrate. USCG Type approval granted.
IMO FTP Annex 2	Smoke and toxicity	376675	
MED B	EC Type Certificate (Module B) for Marine Equipment Directive	MEDB00007RS	
MED D	EC Type Certificate (Module D) for Marine Equipment Directive	MEDD000028J	
EN 45545-2 (ISO 5658-2)	Spread of flame	503996	R1, R7, R8, HL3
EN 45545-2 (ISO 5660-1 : 50kWm-2)	Heat release rate by cone calorimeter		
EN 45545-2 (ISO 5659-2 : 50kWm-2)	Smoke generation (optical density)		
RISSB AS 7529	Material fire performance	376677, 376678, 376679	Complies with requirements for combustible component material in Locomotive and Passenger rolling stock.
ASTM E 162	Surface flammability	101731845MID-001c	Complies for US (FRA) Federal railroad administration requirements and requirements of NFPA 130 - Complies for US (DOT) Department of transportation requirements for acoustic insulation of transit bus and vans (Docket 90A).
ASTM E 662	Optical Density of Smoke Generated	101731845MID-002c	
ASTM E 800 (SMP-800C)	Gases Present or Generated During Fires	101731845MID-003c	
FMVSS 302	Flammability of interior materials	20713JY	Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles.

CHEMICAL RESISTANCE

UV	Water	Petrol	Diesel	10% HCl solution	10% NaOH solution	Permeability (ASTM1653) (Report no. 19013BD1)
2000+ hours	Excellent	Good	Good	Good	Good	< 3 metric perms

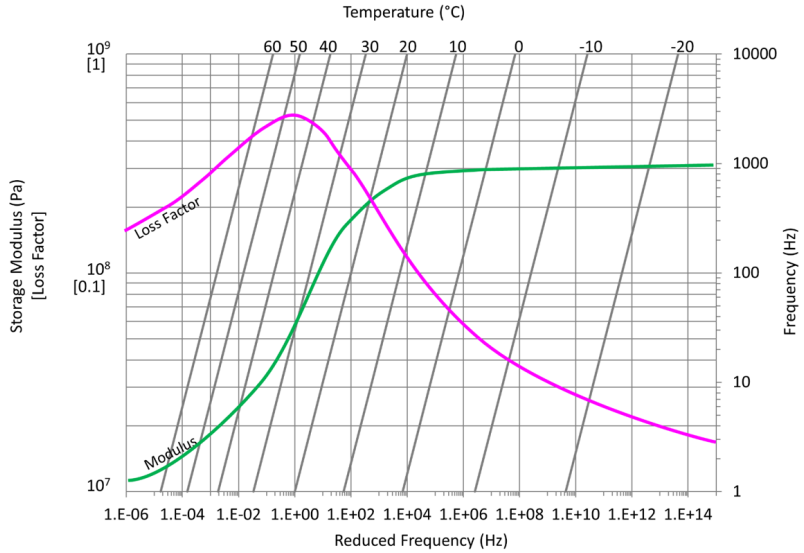
THERMAL PERFORMANCE

Thermal conductivity (ISO 8302) (Report no. 332/13)
0.07 $Wm^{-1}K^{-1}$



Report no.20613BD1

ACOUSTIC PERFORMANCE



Tested to ISO 6721-5:1996
Report Number: 06424CD

How to read a reduced frequency nomogram:

1. *Start by selecting the frequency (Hz) on the right-hand vertical axis.*
2. *Follow this value horizontally to the left to where the diagonal temperature isotherm intersects.*
3. *Draw a vertical line through the frequency and isotherm intersection, find the point where this line intersects the modulus and loss factor curves.*
4. *Draw horizontal lines from these points to the left-hand vertical axis to read the values.*

SYSTEM LOSS FACTOR

Temp (°C)	SLF at 2:1 Ratio on Steel	Noise reduction (dB) on a large panel	SLF at 2:1 Ratio on aluminium	Noise reduction (dB) on a large panel
-10	0.013	11.21	0.026	14.22
0	0.013	11.21	0.026	14.22
10	0.018	12.50	0.036	15.51
20	0.037	15.68	0.074	18.69
30	0.028	14.47	0.056	17.48
40	0.021	13.22	0.042	16.23
50	0.019	12.72	0.037	15.73

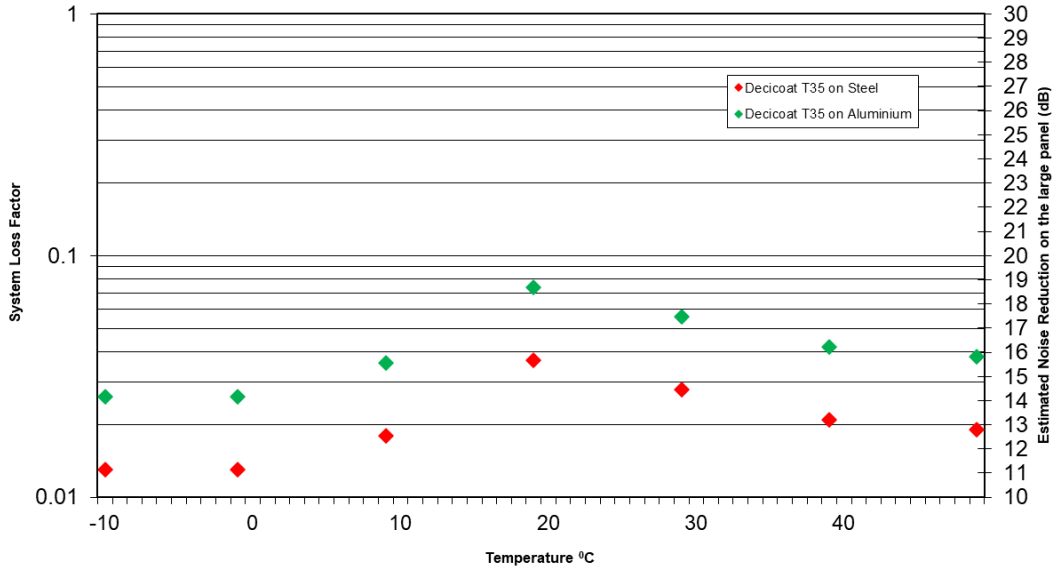
Test report: 34623CD

DECAY RATE AS PER ISO 7626-5:1994

Sample	Decay Rate (dB/sec)
1 mm steel	38
1mm steel with 2mm Decicoat T35 coating	3500

Test report: 20613BD1

Conversion of system loss factor to estimated noise reduction on the large panel (dB) over range of temperatures as tested to ASTM E756-83. The system being a ratio 2:1 coating to steel/aluminium substrate.



For further information and contact details, please visit our website pyroteknc.com