

Issue Date: February 2022

TH9000

Polyurethane Anti-Microbial Pigmented Topcoat

DESCRIPTION & USES	Polyurethane ACTIVE-DEFENCE two-component, pigmented topcoat with very good surface hardness, excellent water resistance, good resistance to marking and excellent hiding power. Excellent drying qualities allow the applicator to deliver a silky smooth finish in an economical time frame. This product in white and light colours has excellent coverage from a high proportion of titanium dioxide pigment. Our ACTIVE-DEFENCE range has the added protection of preventing bacterial and fungal growth. Surfaces coated with ACTIVE-DEFENCE products contain Zinc Pyrithione and Thiabendazole which are able to penetrate the cellular wall of the microbe. DNA and RNA of the microbe is disrupted, breaking the organisms structure and preventing its ability to duplicate.
Recommended Application:	For use over undercoat TF0333 or Polyester PF0313.
Suggested Application Areas:	Hospitals, Medical centres, Dental surgeries, Nursing homes, Universities and Schools, Laboratories, Libraries, Hotels, Shopping centres, Bars and Restaurants.

DRY FILM PROPERTIES

Colour:	White, can be tinted to most colours
Gloss:	10% Matt, 30% Satin, 60% Semi-gloss

WET PROPERTIES

Solid content:	67% (approx)
Specific gravity:	1.48 kg/L (approx)
Viscosity in drum:	105 seconds DIN 4 @ 20°C (approx)
Shelf life:	36 months in sealed containers

APPLICATION

Method:

Spraying conventional, airless

Mixing Ratio:	Product Codes	By Weight	
	TH9000 Part A	100 parts	
	TV4288 Part B	50 parts	
	THIN-PU-STD Thinner	20-30 parts	
In hot conditions NT573 Retarder can be a Thinner amounts depend on the equipment			
Drying time (100g/m2):	Dust free: 5-10 mins at 20°C Touch dry: 30-40 mins at 20°C		

Pot Life: 3 hours (approx)

FOR INDUSTRIAL USE ONLY Data shown are mean values and cannot be construed as product specifications. Users are advised to make their own tests to determine the suitability of products for their own purposes.

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April 24, 2020

Gavan Cuthill Croma Coatings Sydney 19 Stanley Street Peakhurst, NSW 2210

Antimicrobial Assessment of One Coating Sample

3601485.15

One sample of TH9000 was received from Croma Coatings incorporating an antimicrobial on January 28, 2020. At Thomson Research Associates, Inc., the sample was accelerated aged and tested for antimicrobial activity using a quantitative test method.

PROCEDURE

Quantitative Antibacterial Assessment:

ISO 22196:2011 was used to quantitatively test the specimen for antibacterial activity. In brief:

- 1. The sample was placed into a container with a lid.
- 2. A 0.3 mL inoculum of *Staphylococcus aureus* (ATCC #6538) was placed in microdroplets on the surface of the samples.
- 3. The specimen was incubated 24 hours at 37C.
- 4. 20 mL of Letheen broth was added to the container and shook. The liquid was plated using dilution techniques.
- 5. The "Value of Antimicrobial Activity" was carried out using the formula

 $R = [\log (B/C)]$ Where:

R= value of antimicrobial activity

B = Average of the number of viable cells of bacteria on the untreated test piece / inoculum control after 24 hours

C = Average of the number of viable cells of bacteria on the antimicrobial test piece after 24 hours.

THOMSON RESEARCH ASSOCIATES, INC.

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RESULTS

Quantitative Assessment of Activity - ISO 22196:2011 S. aureus						
Concentration of starting inoculum 2.83 x 10 ⁵						
Sample Description		No. Bacteria Recovered		Log Value	R = [log(B/C)]	% Reduction
1	TH9000, With Additive	<2.0	0 x 10 ¹	<1.3	>4.2	>99.9%
Inoculum control		3.34	4 x 10 ⁵	5.5		

Note: ASTM F1980 - Accelerated Aging of Sterile Barrier Systems for Medical Devices was used simulate real shelf-life aging. An incubation of 4 weeks at 60C is roughly equivalent to 1-year shelf life study.

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c: Protective Technology

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