

## Test method: ISO 27447:2009

Test method for anti-bacterial activity  
of semiconducting photocatalytic materials

Test method: **film adhesion**

Material:	Data of recipient 03/05/2017
product	Ceramic materials
sample	Hydrotect anti-bacterial tile
	Test information: Test requested by LAMINAM S.p.A.
	Treated specimens: 50x50mm
	Non-treated glass: 50x50 mm
	All specimens disinfected prior to testing by ethanol
	UV intensity (0,001mW/cm <sup>2</sup> )
	time exposure : 8h,
	Temperature 25°C
	Test bacteria <i>Staphylococcus aureus</i> ATCC 6538 and <i>Escherichia coli</i> ATCC 8739

TEST	METHOD	UM	RESULT
Antibacterial Photocatalytic materials. <i>S.aureus</i> ATCC 6538	ISO 27447:2009 film adhesion		
N° bacteria inoculated		Cells/ml	2400.000
A-average number of bacteria non-treated specimens after inoculation		Cells/ml	250.000
BL- Average number of bacteria non-treated specimens after UV irradiation (0,001mW)		Cells/ml	230.000
CL- average photocatalytic antibacterial activity after UV irradiation (0,001mW)		Cells/ml	8
RL- photocatalytic antibacterial activity after UV irradiation (0,001mW)		Log10	4.4
Reduction of bacteria from non treated specimens after UV irradiation (0,001mW)		%	99.9

TEST	METHOD	UM	RESULT
Antibacterial Photocatalytic materials. <i>E. coli</i> ATCC 8739	ISO 27447:2009 film adhesion		
N° bacteria inoculated		Cells/ml	250.000
A-average number of bacteria non-treated specimens after inoculation		Cells/ml	230.000
BL- Average number of bacteria non-treated specimens after UV irradiation (0,001mW)		Cells/ml	200.000
CL- average photocatalytic antibacterial activity after UV irradiation (0,001mW)		Cells/ml	10
RL- photocatalytic antibacterial activity after UV irradiation (0,001mW)		Log10	4.3
Reduction of bacteria from non treated specimens after UV irradiation (0,001mW)		%	99.9

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