

Property	Test Method	Results	Product	Tested by
<u>Solar Reflectance</u>	ASTM E903	0.84	Bioni Perform	University of Athens
<u>Infrared Emittance</u>	ASTM E408	0.87	Bioni Perform	University of Athens
<u>UV Resistance</u> after 600 Hours	ASTM G154-06	No Effect	Bioni Perform	NGEE ANN Polytechnic Singapore
<u>Pull-Off Adhesion</u>	ASTM D4541	468 psi	Bioni Perform	Stonebridge Technical Services
<u>Flexibility</u>	ASTM D522	Pass 1/8"	Bioni Perform	Stonebridge Technical Services
<u>UV Resistance</u> after 500 Hours	ASTM D4587	No Effect	Bioni Perform	Stonebridge Technical Services
<u>Flame Spread</u>	ASTM E84-08a	Class A Flame Spread Index: 5 Smoke Development Index: 0	Bioni Perform	Architectural Testing & Southwest Research Institute
<u>Water Vapor Permeability</u> wet cup method	ASTM E96	27.6 perms	Bioni Perform	Architectural Testing
<u>Water Resistance</u> after 240 Hours	ASTM D4585	Pass	Bioni Perform	Stonebridge Technical Services
<u>VOC</u>	ISO 11890-2	4.4 g/l	Bioni Perform	Eurofins Enviroment A/S
		4.2 g/l	Bioni Nature Bioni Medical Bioni W23.1	
		24 g/l	Bioni Roof	
		<1 g/l	Bioni Grip	
<u>Contrast Ratio</u>	ASTM D2805	0.8109 0.9290 0.9583 0.9869	Bioni Nature Bioni Medical Bioni W23.1	Stonebridge Technical Services
0.0015" Drawdown				
0.003" Drawdown				
0.005" Drawdown				
0.0075" Drawdown				
<u>Scrub Resistance</u>	ASTM D2486	400 Scrubs	Bioni Nature Bioni Medical Bioni W23.1	Stonebridge Technical Services
<u>Flame Spread</u>	ASTM E84	Class A Flame Spread Index: 0 Smoke Development Index: 5	Bioni Nature Bioni Medical Bioni W23.1	Architectural Testing & Southwest Research Institute
<u>Cleansability</u>	ASTM D4828	5 (Moderate change, stain slightly visible) 3 (Slight change, stain readily visible) 7-10 (All or nearly all stain removed) 3 (Slight change, stain readily visible) 7-10 (All or nearly all stain removed) 5 +	Bioni Nature Bioni Medical Bioni W23.1	Stonebridge Technical Services
No. 2 Leaded Pencil				
Bic Ballpoint Pen				
Crayola Waterbased Marker				
Crayola Crayon				
Mary Kay Lipstick				
Average Cleansability				
<u>Tensile Strength</u>	ASTM D2370	137 psi	Bioni Perform	Stonebridge Technical Services
<u>Elongation</u>				
<u>VOC</u> <u>Indoor Air Quality</u>	PROOF criteria catalogue for wall coatings/wall paints issued 05/2010	Pass	Bioni Nature Bioni Medical Bioni W23.1	TÜV Rhineland / LGA
<u>VOC</u> <u>Indoor Air Quality</u>	ISO 16000-3 16000-6 16000-9 16000-11 16017-1	VOC after 3 days below the limit of 10 mg/m ³ VOC after 28 days below the limit of 1 mg/m ³ SVOC after 28 days below the limit of 0.1 mg/m ³	Bioni Nature	Eurofins Enviroment A/S
		VOC after 3 days below the limit of 10 mg/m ³ VOC after 28 days below the limit of 1 mg/m ³ SVOC after 28 days below the limit of 0.1 mg/m ³	Bioni Medical Bioni W23.1	
<u>Tensile Resistance</u>	DIN EN ISO 527	Unexposed samples: 2.0 N/mm ² (Mean Value) Exposed samples: 3.2 N/mm ² (Mean Value)	Bioni Perform	Polymere Institute
<u>Elongation properties</u>		Unexposed samples: 11.9 % (Mean Value) Exposed samples: 9.1 % (Mean Value)		

<u>Light & Radiation Characteristics</u>	DIN EN 410	Ultraviolet band: 0.00 (transmittance) Visible band: 0.00 (transmittance) Solar band: 0.00 (transmittance) Ultraviolet band: 0.07 (reflection) Visible band: 0.91 (reflection) Solar band: 0.81 (reflection)	Bioni Perform	Fraunhofer-Institute for Building Physics
<u>Disinfectant resistance</u>	DIN EN ISO 2812-1	none or (very) slight changes for different test media	Bioni Medical Bioni W23.1	Polymere Institute
	Specifications of the Sponsor		Bioni Medical Bioni W23.1	Polymere Institute
<u>Algae Resistance</u>	VdL07	Algae Resistant	Bioni Perform	MPA Bremen
<u>Bacteria Resistance</u>	6h, 24h, 2d, 1w, 3ws, 6ws after inoculation	Staphylococcus aureus: 5 log reduction (99.999%) Enterococcus Faecium: 5 log reduction (99.999%)	Bioni Medical Bioni W23.1	Institute for Hospital Hygiene and Infection Control
<u>Bacteria Resistance</u>	1 hour after inoculation	- E. coli: very isolated / moderate - Pseudomonas aeruginosa: not detectable - Listeria monocytogenes: moderate and increased	Bioni Medical Bioni W23.1	Gissel Institute for Bacteriology and Hygiene
	4 days after inoculation	- E. coli: not detectable - Pseudomonas aeruginosa: not detectable - Listeria monocytogenes: not detectable		
<u>Environmentally friendly</u>		Pass	Bioni Nature Bioni Medical Bioni W23.1	Singapore Environment Council
<u>Permeability for Liquid Water</u>	DIN EN 1062-3	Bioni Perform: 0.02 (kg/(m ² Vh)) -> Class 3 ("low")	Bioni Perform	Research Institute for Paints and Pigments
<u>Adhesion</u>	DIN 1542	Concrete: 2.94 [Mpa]	Bioni Perform	Technical University Hamburg-Harburg
	DAFStb Guideline	Fibre Glass: 3.06 N/mm ²	Bioni Perform	
<u>Mould resistance</u>	Ph.Eur.1997, Supplement 2001, 2.6.1 „Sterility Test“	no fungal growth on paint sample	Bioni Nature Bioni Medical Bioni W23.1	Bioserv Analytic and Medical Devices
<u>Contrast Ratio</u>	ISO 6504-3 / VdL Guideline 09	Class 2	Bioni Nature Bioni Medical Bioni W23.1	Research Institute for Paints and Pigments
<u>Washability / wet abrasion resistance</u>	DIN EN ISO 11998 DIN EN 13300	Class 2	Bioni Nature Bioni Medical Bioni W23.1	Research Institute for Paints and Pigments
<u>Flame Resistance</u>	DIN 4102-1	non-flammable (Class A2)	Bioni Nature Bioni Medical Bioni W23.1	MPA Hannover (Material Testing Institute)
		flame retardant (Class B1)	Bioni Perform	
<u>Indoor Air Quality</u>	Committee for Environmental Medicine & Building Hygiene guideline	"Environmentally Medically Recommended" (certificate)	Bioni Medical Bioni W23.1	Committee for Environmental Medicine and Building Hygiene
<u>Solar Reflectance</u> <u>Solar Absorbance</u> <u>Thermal Emittance</u>	JIS R3106	Solar Reflectance: 91.8 % Solar Absorbance: 8.2 % Thermal Emittance: 0.88	Bioni Perform	Institute for scientific and technological research and services (Thailand)