

Prime Antibacterial laminate - specifications

OBJECT = EVALUATION OF RESULTS OF TWO TEST REPORTS RELATED TO ISO 21702:2019

TEST REPORT 20LA06051 of 24/09/2020 (report n° of registration D/20/697 of 22/06/2020) – SAMPLE 5_C#A38X...XBIH (with Zinc salts)

In the test report 20LA06051 of 24/09/2020, as required by standard ISO 21702, the virucidal activity is $R = U_t - A_t$ (3.96) – A_t (3.37), where U_t is the average value of the decimal logarithm of the number of recovered plaques from the three not treated samples after 24 h and A_t is the average value of decimal logarithm of recovered plaques from the three not treated samples after 24 h. The obtained value R is of 0.59 ± 0.16 TCID₅₀/cm².

The laboratory expresses the data also as reduction percentage of the U_t value, that is $(0.59/3.96) \times 100 = 14.9 \%$.

The percentage from our point of view could be expressed in logarithmic reduction percentage according to the following mathematical calculation:

$$P = (1 - 10^{-L}) \times 100$$

where

P is the percentage of reduction

L is the logarithm of reduction (R)

The resulting value is = 74.3%.

TEST REPORT 20RP00026 of 14/10/2020 (report Project ID 0920-DRM-01-1 of 24/09/2020) – ANTIBACTERIALSAMPLE 5_C#A38X...XBIH ANTIBACTERIAL (with Silver salts)

In test report 20RP00026 of 14/10/2020 the result obtained from the TREATED ANTIBACTERIAL SAMPLE 5_C#A38X...XBIH ANTIBACTERIAL is given in relation to a laboratory internal non treated control (SBSC untreated control) and the result obtained from the customer's untreated sample (named 20RP00026 NOT TREATED) again in relation to a laboratory internal non treated control. In this case, the results are:

$R_{20RP00026} = 3.2$ (reduction logarithms, in TCID₅₀/cm²)

$R_{20RP00026 \text{ NOT TREATED}} = 2.8$ (reduction logarithms, in TCID₅₀/cm²)

In order to express, as requested by the standard, the result of the TREATED sample in relation to the UNTREATED one, using the raw data provided in the test report, we can obtain **U_t** (2.886) and **A_t** (2.553) values, from which we can derive that the value of **$R = U_t - A_t$** is 0.33.

If we want to express the obtained data in reduction percentage in relation to the U_t value as the first manner used by the first laboratory, the result would be 11.8 %.

Expressing instead the reduction percentage data as the approach based on the measured concentrations, the result would be 53.6 %.

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CORRELATING DATA

In order to achieve a linear comparison of the data for the two treated material, we report a summary table:

	R = $U_t - A_t$ (TDIC50/cm2)	% di abbattimento rispetto a U_t	R espresso come % di abbattimento
20LA06051 SAMPLE 5_C#A38X...XBIH (with Zinc salts)	0.59	14.9	74.3
20RP00026 ANTIBACTERIALSAMPLE 5_C#A38X...XBIH (with Silver salts)	0.33	11.8	53.6