

**TEXT REPORT**

Pag. 1/9

N° 0050\DC\ACU\18

Date: **20/07/2018**

## SPECIMEN DESCRIPTION:

**PRODESO SOUND**

Impact sound insulation roll

## CLIENT:

**PROGRESS PROFILES S.p.A.**VIA LE MARZE, 7  
31011 ASOLO (TV)

## REFERENCE STANDARD:

EN ISO 10140-3:2010  
EN ISO 717-2:2013

## OUTSIDE DISTRIBUTION:

**PROGRESS PROFILES S.p.A.**

## INSIDE DISTRIBUTION:

## ACCREDITATION BODY:

**CSI S.p.A**  
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**TEXT REPORT**Pag. **2/9**

N° 0050\DC\ACU\18

Date: **20/07/2018****DATI GENERALI**

Sample supply date	06/07/2018
Text date	10/07/2018
Sampling	Sample supplied by client

**Standard reference identification****EN ISO 10140-1:2016**

Acoustic – Laboratory measurements of sound insulation of building elements – Part 1: application rules for specific product

**EN ISO 10140-3:2010**

Acoustic – Laboratory measurements of sound insulation of building elements – Part 3 measurement of impact sound insulation

**EN ISO 717-2:2013**

Acoustic – Laboratory measurements of sound insulation of building elements – Part 2: impact sound insulation

Standard procedure	SI
Standard procedure deviations	NO
Calculation check	SI

**DECLARATIONS**

The test results contained in this report relate only to the sample tested

The test report shall not be reproduced except in full without the written approval of the Head of Laboratory

Except where stated, characteristics of products were taken from client description and were not verified by the laboratory.



## TEXT REPORT

Pag. 3/9

N° 0050\DC\ACU\18

Date: **20/07/2018**

### TEXT METHOD DESCRIPTION

Measurement of impact sound pressure level generated by standard tapping machine of the bare test floor  
Measurement of impact SPL generated by standard tapping machine of the test floor with covering Measurement of reverberation time in the receiving room

Calculation of the normalized impact sound pressure level according to formula  $L_{n0,n} = L_{1,2} + 10 \cdot \log\left(\frac{0,16 V}{A_0 T}\right)$

where:

$L_{n0}$  = normalized impact sound pressure level of bare floor (dB)  $L_n$  = normalized impact sound pressure level of floor with covering (dB)

$L_1$  = average sound pressure level of bare floor (dB)

$L_2$  = average sound pressure level of floor with covering (dB)

$T$  = average reverberation time of receiving room (s)

$V$  = volume of the receiving room

$A_0$  = reference equivalent sound absorption area (10 m<sup>2</sup>)

Calculation of the reduction of impact sound by formula  $\Delta L = L_{n0} - L_n$

Calculation of impact sound pressure level of the reference floor with tested covering by formula  $L_{n,r} = L_{n,r,0} - \Delta L$  where  $L_{n,r,0}$  is the normalized impact sound pressure level of the reference floor (ISO 717-2, par. 5.2) Calculation of rating numbers according to ISO 717-2:

$L_{n0,W}$  and  $L_{n,W}$  = tested floor

$L_{n,r,0,W}$  and  $L_{n,r,W}$  = reference floor

$\Delta LW = L_{n,r,0,W} - L_{n,r,W}$



**TEXT REPORT**

Pag. 4/9

N° 0050\DC\ACU\18

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**TESTED SAMPLE DESCRIPTION**

**System description**

Solution 1		
<b>Floor type</b>	Single slab of reinforced concrete, thickness 140 mm	
<b>Underlayer</b>	Description	n.a
<b>Insulating material</b>	<b>Description</b>	
	Trading name	PRODESO SOUND
	Description	Impact sound insulation roll
	Weight kg/m <sup>2</sup>	1,175
	Dimension of roll mm	1000 x 20000
	Total thickness mm	2,3
	Application side	Lower layer on adhesive
	<b>Upper layer</b>	
	Material	Spunbond
	Weight kg/m <sup>2</sup>	0,080
	<b>Central layer</b>	
	Material	Polimeric mixture
	Density kg/m <sup>3</sup>	950
	Thickness mm	1
	<b>Lower layer</b>	
	Material	Non-woven polypropylene fabric
	Weight kg/m <sup>2</sup>	0,2
	Thickness mm	1
<b>Screed</b>	Description	n.a.
<b>Covering type</b>	Description	Ceramic tiles 10 mm thick
		Cement based adhesive
	Total weight kg/m <sup>2</sup>	22,5
<b>Dimensions mm</b>	3400 x 3400	

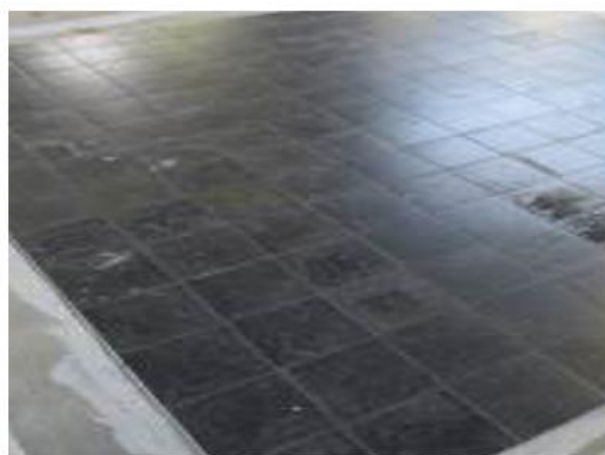
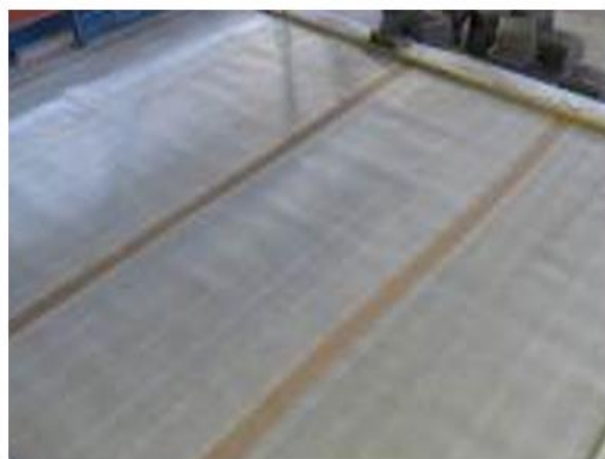
**TEXT REPORT**

Pag. 5/9

N° 0050\DC\ACU\18

Date: **20/07/2018****Climatic conditions during test**

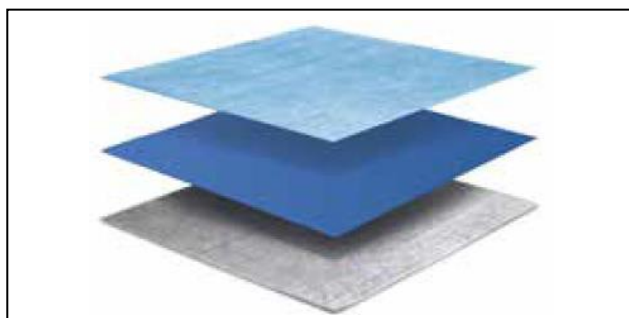
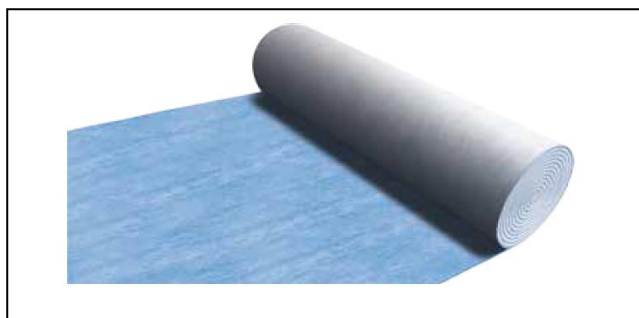
	Receiving	Source
Room temperature °C	27 ± 0,5	26 ± 0,5
Relative humidity %	55 ± 5	56 ± 5



**TEXT REPORT**

Pag. 6/9

N° 0050\DC\ACU\18

 Date: **20/07/2018**
**DATA SHEET**


**PRODESO SOUND** is a membrane in high density polyethylene provided on both side with a non-woven thermo-welded polypropylene fabric that guarantees the adhesion with the adhesive.

**DATI TECNICI**

Appearance	Polymeric membrane	
Colour	White / Cyan blue	
Total thickness	≈ 2,3 mm	EN 1849 - 2
Roll width	≈ 1 m	
Weight	≈ 1175 g / m <sup>2</sup>	EN 9864

**PERFORMANCE HIGT – TECH**

Resistance to water penetration	Classe W1	EN 13859-1
Sd	≥ 60	DIN 52615
Thermal conductivity	0,04 W/m k	
Impact sound reduction	17 dB	EN ISO 10140-3 EN ISO 717-2
Compressive stress at 10% strain	15 g/cm <sup>2</sup>	
Crack – Bridgin Ability (sistema incollato)	≥ 1 mm	
Working temperature	- 40° C / +80° C	



**TEST REPORT**

Pag. 7/9

N° 0050\DC\ACU\18

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**PRODESO SOUND STRATIGRAPHY**



**Prodeso Sound is composed of three layers:**

- Upper layer (in contact with tiles): spunbond with a weight of 80 g/m<sup>2</sup>
  - Central layer: polymeric mixture with a density of 0,95 gr/cm<sup>3</sup> and a thickness of 1 mm
  - Lower layer (in contact with support): non-woven fabric in needle punched polypropylene with a weight of 200 g/m<sup>2</sup>
- **The product has a total weight of 1,175 kg/m<sup>2</sup> ± 5 % and a thickness of 2,3 mm ± 5 %**



**TEXT REPORT**

Pag. 8/9

N° 0050\DC\ACU\18

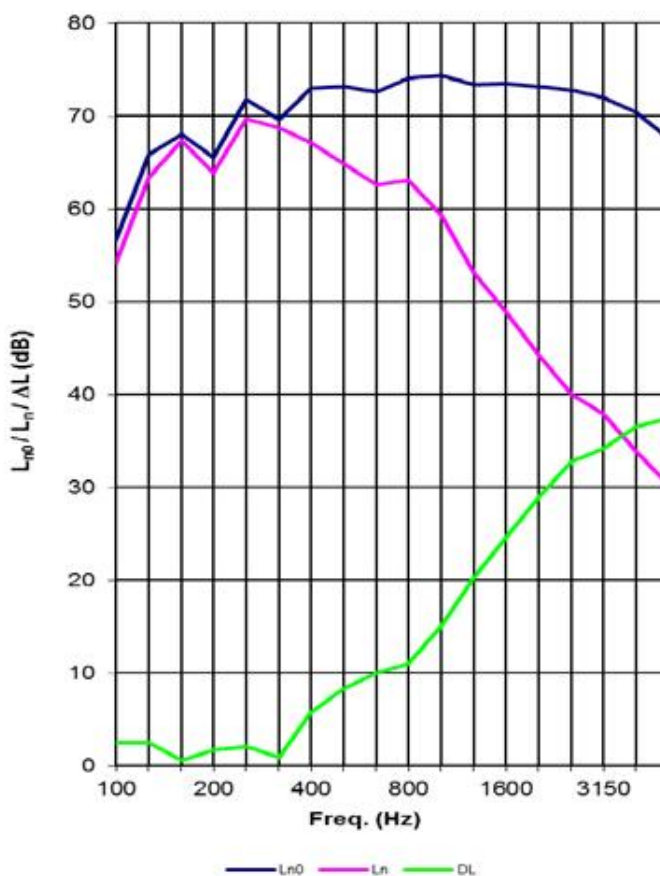
 Date: **20/07/2018**
**TEST RESULTS**

 Sample surface **11,5** m<sup>2</sup>  
 Volume of receiving room **86** m<sup>3</sup>

FREQ. (Hz)	Ln0 (dB)	Ln (dB)	ΔL (dB)
100	56,7	54,2	2,5
125	65,9	63,4	2,5
160	68,0	67,4	0,6
200	65,6	63,9	1,7
250	71,8	69,7	2,1
315	69,6	68,7	0,9
400	73,0	67,2	5,8
500	73,2	64,9	8,3
630	72,6	62,6	10,0
800	74,1	63,1	11,0
1000	74,4	59,3	15,1
1250	73,4	53,1	20,3
1600	73,5	48,9	24,6
2000	73,2	44,3	28,9
2500	72,8	40,0	32,8
3150	72,0	37,9	34,1
4000	70,4	33,9	36,5
5000	67,6	30,2	37,4

$L_{n0,w} = 79$  dB  
 $L_{n,w} = 62$  dB  
 $L_{nr0,w} = 78$  dB  
 $L_{nr,w} = 61$  dB  
 $\Delta L_w = 17$  dB

$C_{l,r,0} = -11$  dB  
 $C_{l,r} = -1$  dB  
 $C_{l,\Delta} = -10$  dB



DATE

20/07/2018

Building Physics Sector

G. De Napoli

B. U. Product

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 Digitally signed document in accordance with Legislative Decree n. 82 dated March 7<sup>th</sup> 2005 and subsequent amendments.