

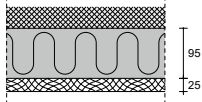
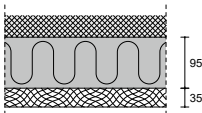
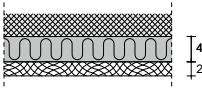
# Sound absorption values – Ceilings

## Constructions with Troldekt panels

### Tested according to DS/ISO 354

TCH = Total Construction Height

## Troldekt installed on concrete

Constructions with Troldekt and mineral wool installed directly on concrete		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>Concrete 95 mm mineral wool 30 kg/m<sup>3</sup> 25 mm Troldekt TCH 120 mm</p>	Fine structure	0.55	1.00	1.00	0.90	0.80	1.00	0.90	1.00	A	April 2017	SRL
	Ultrafine structure	0.55	1.00	1.00	0.95	0.90	1.00	0.95	1.05	A	April 2017	SRL
	Extreme fine structure	0.55	1.00	1.00	0.95	0.90	1.00	0.95	1.00	A	April 2017	SRL
 <p>Concrete 95 mm mineral wool 30 kg/m<sup>3</sup> 35 mm Troldekt TCH 130 mm</p>	Fine structure*	0.60	1.00	1.00	0.85	0.95	0.95	0.95	0.95	A	2015	Peutz
	Ultrafine structure	0.65	1.00	1.00	0.95	1.00	1.00	1.00	1.05	A	June 2018	SRL
	Extreme fine structure	0.60	1.00	1.00	0.95	1.00	1.00	1.00	1.05	A	June 2017	SRL
 <p>Concrete 45 mm mineral wool 30 kg/m<sup>3</sup> 25 mm Troldekt TCH 70 mm</p>	Fine structure	0.25	0.85	1.00	0.90	0.95	1.00	0.90	0.95	A	April 2017	SRL
	Ultrafine structure	0.25	0.75	1.00	1.00	0.90	1.00	0.95	0.95	A	April 2017	SRL
	Extreme fine structure	0.25	0.80	1.00	0.95	0.85	1.00	0.95	0.95	A	April 2017	SRL

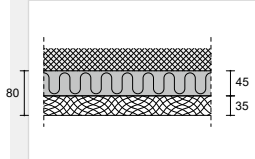
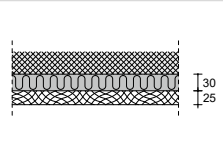
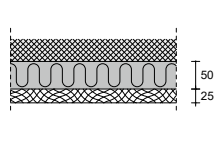
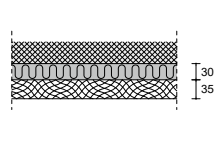
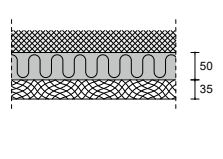
\*95 mm mineral wool 33 kg/m<sup>3</sup>

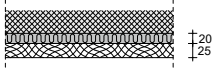
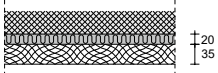
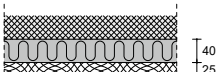
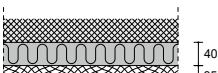
Constructions with Troldekt and mineral wool installed directly on concrete

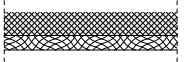
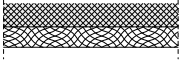
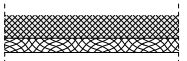
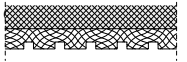
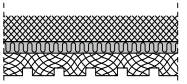
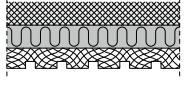
Frequency [Hz]  
125 250 500 1000 2000 4000

Specifications  
 $\alpha_w$  NRC Class

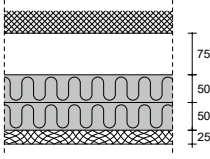
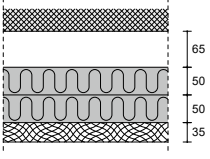
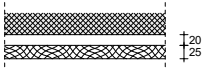
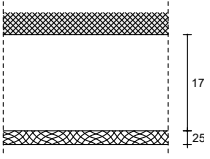
Date Institute

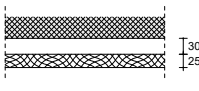
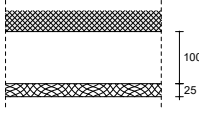

 <p>Concrete 45 mm mineral wool 30 kg/m<sup>3</sup> 35 mm Troldekt TCH 80 mm</p>												
	Fine structure	0.30	0.85	1.00	0.85	0.90	1.00	0.90	0.95	A	June 2017	SRL
	Ultrafine structure	0.30	0.85	1.00	0.95	0.90	1.00	0.95	1.00	A	June 2017	SRL
	Extreme fine structure	0.30	0.85	1.00	0.95	0.95	1.00	1.00	0.95	A	June 2017	SRL
 <p>Concrete 30 mm mineral wool 70 kg/m<sup>3</sup> 25 mm Troldekt TCH 55 mm</p>												
	Fine structure	0.20	0.70	1.00	1.00	0.85	1.00	0.90	0.95	A	April 2017	SRL
	Ultrafine structure	0.20	0.65	1.00	1.00	1.00	1.00	0.95	0.95	A	April 2017	SRL
	Extreme fine structure	0.20	0.65	1.00	1.00	0.90	1.00	0.90	0.95	A	April 2017	SRL
 <p>Concrete 50 mm mineral wool 90 kg/m<sup>3</sup> 25 mm Troldekt TCH 75 mm</p>												
	Fine structure	0.35	1.00	1.00	1.00	0.95	1.00	1.00	1.10	A	April 2017	SRL
	Ultrafine structure	0.35	1.00	1.00	1.00	1.00	1.00	1.00	1.10	A	April 2017	SRL
	Extreme fine structure	0.35	1.00	1.00	1.00	0.95	1.00	1.00	1.10	A	April 2017	SRL
 <p>Concrete 30 mm mineral wool 70 kg/m<sup>3</sup> 35 mm Troldekt TCH 65 mm</p>												
	Fine structure	0.20	0.70	1.00	1.00	0.90	1.00	0.95	0.95	A	June 2017	SRL
	Ultrafine structure	0.25	0.75	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL
	Extreme fine structure	0.25	0.75	1.00	1.00	0.90	1.00	0.95	1.00	A	June 2017	SRL
 <p>Concrete 50 mm mineral wool 90 kg/m<sup>3</sup> 35 mm Troldekt TCH 85 mm</p>												
	Fine structure	0.40	1.00	1.00	0.95	0.95	1.00	1.00	1.05	A	June 2017	SRL
	Ultrafine structure	0.40	1.00	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL
	Extreme fine structure	0.40	1.00	1.00	1.00	0.95	1.00	1.00	1.05	A	June 2017	SRL

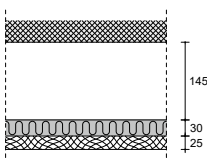
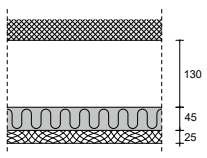
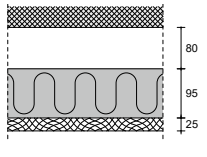
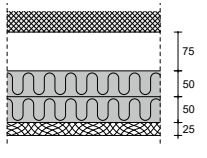
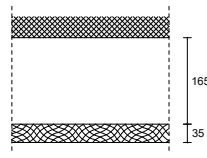
Constructions with Troldekt Plus installed directly on concrete		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>Concrete 25+20 mm Troldekt Plus: - 25 mm Troldekt - 20 mm mineral wool 70 kg/m<sup>3</sup></p> <p>TCH 45</p>	Fine structure	0.15	0.40	0.95	1.00	0.80	0.90	0.70	0.75	C	April 2024	SRL
	Ultrafine structure	0.15	0.45	1.00	1.00	0.80	1.00	0.75	0.85	C	April 2024	SRL
	Extreme fine structure	0.15	0.45	0.90	1.00	0.85	0.90	0.75	0.80	C	April 2024	SRL
 <p>Concrete 35+20 mm Troldekt Plus: - 35 mm Troldekt - 20 mm mineral wool 70 kg/m<sup>3</sup></p> <p>TCH 55 mm</p>	Fine structure	0.20	0.50	1.00	0.90	0.80	1.00	0.80	0.80	B	April 2024	SRL
	Ultrafine structure	0.20	0.55	1.00	0.95	0.85	0.95	0.85	0.85	B	April 2024	SRL
	Extreme fine structure	0.20	0.45	0.95	1.00	0.85	1.00	0.75	0.80	C	April 2024	SRL
 <p>Concrete 25+40 mm Troldekt Plus: - 25 mm Troldekt - 40 mm mineral wool 70 kg/m<sup>3</sup></p> <p>TCH 65 mm</p>	Fine structure	0.30	0.95	1.00	1.00	0.95	1.00	1.00	1.05	A	April 2017	SRL
	Ultrafine structure	0.30	0.85	1.00	1.00	1.00	1.00	1.00	1.05	A	April 2017	SRL
	Extreme fine structure	0.25	0.85	1.00	1.00	1.00	1.00	1.00	1.05	A	April 2017	SRL
 <p>Concrete 35+40 mm Troldekt Plus: - 35 mm Troldekt - 40 mm mineral wool 70 kg/m<sup>3</sup></p> <p>TCH 75 mm</p>	Fine structure	0.30	0.90	1.00	0.95	0.95	1.00	1.00	1.00	A	June 2017	SRL
	Ultrafine structure	0.30	0.90	1.00	1.00	0.95	1.00	1.00	1.00	A	June 2017	SRL
	Extreme fine structure	0.35	0.90	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL

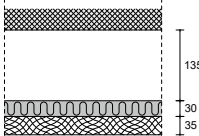
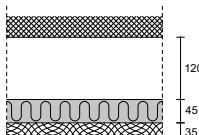
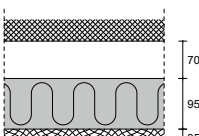
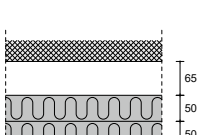
Constructions with Troldekt installed directly on concrete		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
	Concrete 25 mm Troldekt TCH 25 mm											
	Fine structure	0.10	0.15	0.30	0.65	0.95	0.85	0.35	0.55	D	April 2017	SRL
	Ultrafine structure	0.10	0.15	0.30	0.60	0.90	0.80	0.35	0.50	D	April 2017	SRL
	Extreme fine structure	0.10	0.15	0.30	0.60	0.90	0.70	0.35	0.50	D	April 2017	SRL
	Concrete 35 mm Troldekt TCH 35 mm											
	Fine structure	0.10	0.25	0.45	0.85	0.85	0.90	0.50	0.60	D	June 2017	SRL
	Ultrafine structure	0.10	0.25	0.45	0.80	0.90	0.90	0.50	0.60	D	June 2017	SRL
	Extreme fine structure	0.10	0.25	0.50	0.85	0.90	0.90	0.50	0.60	D	June 2017	SRL
Construction with Troldekt A2 installed directly on concrete		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
	Concrete 25 mm Troldekt A2 TCH 25 mm											
	Fine structure	0.05	0.10	0.25	0.45	0.75	0.60	0.30	0.40	D	June 2017	SRL
	Ultrafine structure	0.05	0.15	0.35	0.70	1.00	0.90	0.40	0.55	D	June 2017	SRL
	Extreme fine structure	0.10	0.15	0.35	0.60	0.90	0.75	0.40	0.50	D	June 2018	SRL
Constructions with Troldekt Design installed directly on concrete		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
	Concrete 35 mm Troldekt Line TCH 35 mm											
	Ultrafine structure	0.10	0.20	0.40	0.60	0.80	0.80	0.45	0.50	D	June 2018	SRL
Constructions with Troldekt Design Plus installed directly on concrete		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
	Concrete 18 mm mineral wool 70 kg/m3 35 mm Troldekt Line TCH 53 mm											
	Ultrafine structure	0.15	0.40	0.90	1.00	0.95	1.00	0.70	0.80	C	June 2018	SRL
	Concrete 40 mm mineral wool 70 kg/m3 35 mm Troldekt Line TCH 75 mm											
	Ultrafine structure	0.30	0.85	1.00	1.00	0.95	1.00	1.00	1.05	A	June 2018	SRL

# Trolldtekt installed as suspended ceiling

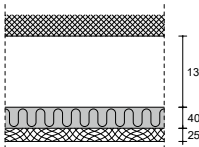
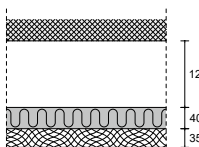
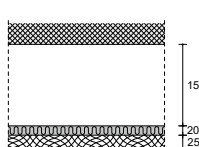
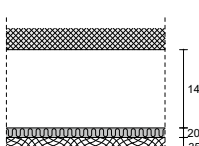
Constructions with Trolldtekt		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>Concrete 75 mm space 50 mm mineral wool 70 kg/m<sup>3</sup> 50 mm mineral wool 70 kg/m<sup>3</sup> 25 mm Trolldtekt TCH 200 mm</p>	Ultrafine structure	0.75	1.00	1.00	1.00	0.95	1.00	1.00	1.05	A	April 2017	SRL
	 <p>Concrete 65 mm space 50 mm mineral wool 70 kg/m<sup>3</sup> 50 mm mineral wool 70 kg/m<sup>3</sup> 35 mm Trolldtekt TCH 200 mm</p>	Fine structure	0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017
Ultrafine structure		0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.10	A	June 2017	SRL
Extreme fine structure		0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL
 <p>Concrete 20 mm space 25 mm Trolldtekt TCH 45 mm</p>		Fine structure	0.15	0.25	0.40	0.75	0.70	0.80	0.45	0.55	D	Sept 2020
	Ultrafine structure	0.10	0.25	0.45	0.85	0.70	0.85	0.50	0.60	D	Sept 2020	SRL
	Extreme fine structure	0.15	0.25	0.50	0.85	0.80	0.85	0.50	0.60	D	Sept 2020	SRL
	 <p>Concrete 175 mm space 25 mm Trolldtekt TCH 200 mm</p>	Fine structure	0.25	0.50	0.60	0.50	0.70	0.90	0.60	0.60	C	Sept 2020
Ultrafine structure		0.30	0.65	0.75	0.60	0.75	0.95	0.70	0.70	C	Sept 2020	SRL
Extreme fine structure		0.30	0.65	0.75	0.60	0.80	0.95	0.70	0.70	C	Sept 2020	SRL

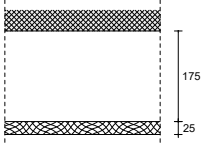
Constructions with Troldekt		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>Concrete 30 mm space 25 mm Troldekt TCH 55 mm</p>	Fine structure	0.10	0.20	0.55	0.90	0.70	0.95	0.50	0.60	D	April 2017	SRL
	Ultrafine structure	0.10	0.20	0.50	0.85	0.70	0.90	0.50	0.55	D	April 2017	SRL
	Extreme fine structure	0.10	0.20	0.50	0.85	0.70	0.85	0.50	0.55	D	April 2017	SRL
 <p>Concrete 100 mm space 25 mm Troldekt TCH 125 mm</p>	Fine structure	0.20	0.40	0.75	0.60	0.65	0.90	0.65	0.60	C	April 2017	SRL
	Ultrafine structure	0.20	0.35	0.70	0.65	0.65	0.90	0.65	0.60	C	April 2017	SRL
	Extreme fine structure	0.15	0.40	0.70	0.65	0.60	0.85	0.65	0.65	C	April 2017	SRL
 <p>Concrete 30 mm space 35 mm Troldekt TCH 65 mm</p>	Fine structure	0.15	0.30	0.75	0.90	0.70	0.95	0.60	0.65	C	June 2017	SRL
	Ultrafine structure	0.15	0.30	0.70	0.90	0.75	0.95	0.60	0.65	C	June 2017	SRL
	Extreme fine structure	0.15	0.30	0.75	0.95	0.75	1.00	0.60	0.70	C	June 2017	SRL
 <p>60 mm space 35 mm Troldekt TCH 95 mm</p>	Ultrafine structure	0.15	0.35	0.85	0.75	0.85	0.95	0.65	0.70	C	June 2017	SRL
 <p>100 mm space 35 mm Troldekt TCH 135 mm</p>	Fine structure	0.15	0.35	0.80	0.65	0.75	1.00	0.65	0.65	C	June 2017	SRL
	Ultrafine structure	0.15	0.40	0.85	0.75	0.80	1.00	0.70	0.65	C	June 2017	SRL
	Extreme fine structure	0.15	0.40	0.85	0.80	0.80	1.00	0.70	0.70	C	June 2017	SRL

Constructions with Troldekt		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>145 mm space 30 mm mineral wool 70 kg/m<sup>3</sup> 25 mm Troldekt</p> <p>TCH 200 mm</p>	Fine structure	0.45	1.00	1.00	1.00	0.85	1.00	0.95	1.00	A	April 2017	SRL
	Ultrafine structure	0.45	1.00	1.00	1.00	0.95	1.00	1.00	1.05	A	April 2017	SRL
	Extreme fine structure	0.40	1.00	1.00	1.00	0.90	1.00	1.00	1.05	A	April 2017	SRL
 <p>130 mm space 45 mm mineral wool 30 kg/m<sup>3</sup> 25 mm Troldekt</p> <p>TCH 200 mm</p>	Fine structure	0.50	1.00	1.00	0.95	0.80	1.00	0.90	1.00	A	April 2017	SRL
	Ultrafine structure	0.45	1.00	1.00	1.00	0.90	1.00	1.00	1.00	A	April 2017	SRL
	Extreme fine structure	0.45	1.00	1.00	1.00	0.85	1.00	0.95	1.05	A	April 2017	SRL
 <p>80 mm space 95 mm mineral wool 30 kg/m<sup>3</sup> 25 mm Troldekt</p> <p>TCH 200 mm</p>	Fine structure	0.65	1.00	1.00	0.95	0.85	1.00	0.95	1.00	A	April 2017	SRL
	Ultrafine structure	0.60	1.00	1.00	1.00	0.95	1.00	1.00	1.05	A	April 2017	SRL
	Extreme fine structure	0.65	1.00	1.00	1.00	0.90	1.00	1.00	1.05	A	April 2017	SRL
 <p>75 mm space 2x50 mm mineral wool 70 kg/m<sup>3</sup> 25 mm Troldekt</p> <p>TCH 200 mm</p>	Fine structure	0.80	1.00	1.00	1.00	0.85	1.00	0.95	1.00	A	April 2017	SRL
	Ultrafine structure	0.75	1.00	1.00	1.00	0.95	1.00	1.00	1.05	A	April 2017	SRL
	Extreme fine structure	0.80	1.00	1.00	1.00	0.90	1.00	1.00	1.05	A	April 2017	SRL
 <p>165 mm space 35 mm Troldekt</p> <p>TCH 200</p>	Fine structure	0.25	0.70	0.70	0.60	0.85	1.00	0.70	0.70	C	June 2017	SRL
	Ultrafine structure	0.30	0.65	0.70	0.70	0.95	1.00	0.75	0.75	C	June 2017	SRL
	Extreme fine structure	0.25	0.70	0.80	0.65	0.85	1.00	0.75	0.75	C	June 2017	SRL

Constructions with Troldekt		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>135 mm space 30 mm mineral wool 70 kg/m<sup>3</sup> 35 mm Troldekt</p> <p>TCH 200</p>												
	Fine structure	0.40	1.00	1.00	1.00	1.00	1.00	1.00	1.10	A	June 2017	SRL
	Ultrafine structure	0.45	0.95	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL
	Extreme fine structure	0.45	0.95	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL
 <p>120 mm space 45 mm mineral wool 30 kg/m<sup>3</sup> 35 mm Troldekt</p> <p>TCH 200</p>												
	Fine structure	0.45	1.00	1.00	0.95	0.95	1.00	1.00	1.00	A	June 2017	SRL
	Ultrafine structure	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	A	June 2017	SRL
	Extreme fine structure	0.45	1.00	1.00	0.95	1.00	1.00	1.00	1.00	A	June 2017	SRL
 <p>70 mm space 95 mm mineral wool 30 kg/m<sup>3</sup> 35 mm Troldekt</p> <p>TCH 200</p>												
	Fine structure	0.70	1.00	1.00	0.95	1.00	1.00	1.00	1.00	A	June 2017	SRL
	Ultrafine structure	0.65	1.00	1.00	0.65	1.00	1.00	1.00	1.05	A	June 2017	SRL
	Extreme fine structure	0.65	1.00	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL
 <p>70 mm space 65 mm space 2x50 mm mineral wool 70 kg/m<sup>3</sup> 35 mm Troldekt</p> <p>TCH 200</p>												
	Fine structure	0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL
	Ultrafine structure	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.10	A	June 2017	SRL
	Extreme fine structure	0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.05	A	June 2017	SRL



Constructions with Troldekt Plus		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>Concrete 135 mm space 25+40 mm Troldekt Plus: - 25 mm Troldekt - 40 mm mineral wool 70 kg/m<sup>3</sup> TCH 200</p>												
	Fine structure	0.70	1.00	1.00	0.95	0.90	1.00	0.95	1.05	A	April 2024	SRL
	Ultrafine structure	0.70	1.00	1.00	0.95	0.95	1.00	1.00	1.05	A	April 2024	SRL
	Extreme fine structure	0.65	1.00	1.00	1.00	0.90	1.00	1.00	1.05	A	April 2024	SRL
 <p>Concrete 125 mm space 35+40 mm Troldekt Plus: - 35 mm Troldekt - 40 mm mineral wool 70 kg/m<sup>3</sup> TCH 200</p>												
	Fine structure	0.70	1.00	1.00	0.95	0.90	1.00	0.95	1.05	A	April 2024	SRL
	Ultrafine structure	0.70	1.00	1.00	0.95	0.95	1.00	1.00	1.05	A	April 2024	SRL
	Extreme fine structure	0.70	1.00	1.00	1.00	0.95	1.00	1.00	1.10	A	April 2024	SRL
 <p>Concrete 155 mm space 25+20 mm Troldekt Plus: - 25 mm Troldekt - 20 mm mineral wool 90 kg/m<sup>3</sup> TCH 200</p>												
	Fine structure	0.55	1.00	1.00	0.95	0.90	1.00	0.95	1.00	A	April 2024	SRL
	Ultrafine structure	0.60	1.00	1.00	0.95	0.90	1.00	0.95	1.00	A	April 2024	SRL
	Extreme fine structure	0.55	1.00	1.00	0.95	0.90	1.00	0.95	1.00	A	April 2024	SRL
 <p>Concrete 145 mm space 35+20 mm Troldekt Plus: - 35 mm Troldekt - 20 mm mineral wool 90 kg/m<sup>3</sup> TCH 200</p>												
	Fine structure	0.55	1.00	1.00	0.90	0.90	0.95	0.95	1.00	A	April 2024	SRL
	Ultrafine structure	0.65	1.00	1.00	0.90	0.90	1.00	0.95	1.00	A	April 2024	SRL
	Extreme fine structure	0.60	1.00	1.00	1.00	0.95	1.00	1.00	1.05	A	April 2024	SRL

Construction with Troldekt A2		Frequency [Hz]						Specifications			Date	Institute
		125	250	500	1000	2000	4000	$\alpha_w$	NRC	Class		
 <p>Concrete 175 mm space 25 mm Troldekt A2</p> <p>TCH 200</p>	Fine structure	0.25	0.50	0.60	0.55	0.70	0.90	0.60	0.55	C	June 2018	SRL
	Ultrafine structure	0.25	0.50	0.65	0.55	0.70	0.90	0.65	0.60	C	June 2018	SRL

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