

W62 Knauf Knauf Furrings / Installation Shaft Walls

Updated wall heights 2008-11, pages 11,14

W622 – Knauf Furring - with Resilient Channels

W623 – Knauf Furring - with CD 60/27

W625 – Knauf Independent Furring - with CW studs, single layer cladding

W626 – Knauf Independent Furring - with CW studs, double layer cladding

W653 – Knauf Independent Furring - with CW studs, Knauf Soli Board cladding

W628 – Knauf Installation Shaft Wall - type A with corner angle, type B with CW studs

W629 – Knauf Installation Shaft Wall - with double metal stud frame

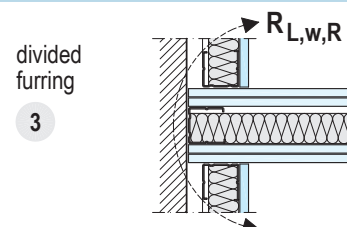
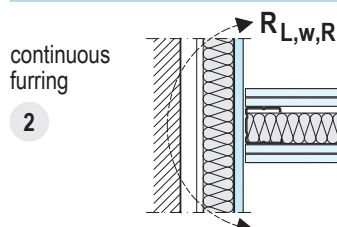
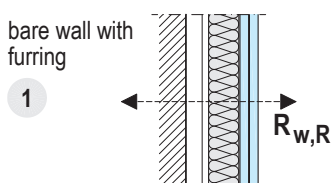
W630 – Knauf Installation Shaft Wall - with CW stud crossbars

Knauf Furrings / Installation Shaft Walls W623, W625, W626

Technical data of solid wall				Calculation value of sound reduction index $R_{w,R}$			Calculation value of lateral sound reduction index $R_{L,w,R}$		
material	density material	thick-ness	weight per unit area	solid wall alone	bare wall with furring insulation 40 mm		solid wall alone	bare wall with furring	
one side gypsum plaster $\geq 10 \text{ kg/m}^2$	density wall	mm	kg/m^2	dB	cladding	1	dB	continuous	divided by partition
	kg/m^3				12.5 mm	2x 12.5 mm		2	3
								dB	dB
autoclaved aerated concrete high precision bricks (DIN 4165) glued	500 (450)	125	56	29	47	48	36	49	57
		175	79	33	48	49	40	52	60
		250	113	38	52	53	45	53	64
		300	135	40	54	55	47	54	66
	700 (650)	365	164	42	56	57	50	56	68
		125	81	33	48	49	40	52	61
		175	114	38	52	53	45	54	63
		250	163	42	56	57	50	56	67
	800 (770)	300	195	44	58	59	52	57	69
		365	237	46	60	61	55	57	70
		115	100	36	50	51	43	53	63
		175	145	41	55	56	48	55	66
light weight perforated bricks (DIN 105) type W ₁ , type A and B with light weight mortar	800 (770)	240	195	44	58	59	52	57	69
		300	241	47	61	62	55	57	71
		365	291	50	63	64	57	57	72
		115	146	41	55	56	48	55	67
	1200 (1180)	175	217	45	59	60	53	57	70
		240	293	50	63	64	57	57	71
		300	364	53	65	66	60	58	72
		365	441	58	68	69	63	58	73
	1400 (1360)	115	166	42	56	57	50	56	67
		175	248	47	61	62	55	57	70
		240	336	51	64	65	59	57	72
		300	418	56	67	68	62	58	73
1600 (1540)	365	506	59	69	70	65	58	74	
	240	380	54	66	67	61	57	72	
	300	472	57	68	69	64	58	73	
	365	572	61	71	72	67	58	74	
1800 (1720)	240	423	56	67	68	62	57	73	
	300	526	60	70	71	65	58	74	
	365	638	62	72	73	68	58	75	
	240	207	44	58	59	53	57	70	
lightweight hollow blocks (DIN 18151)	800 (820)	300	256	47	61	62	55	57	71
		365	309	50	63	64	58	58	72
		240	250	47	61	62	55	57	71
	1000 (1000)	300	310	50	63	64	58	57	72
		365	375	52	66	67	61	58	73
		240	293	50	63	64	57	57	72
	1200 (1180)	300	364	53	65	66	60	58	73
		365	441	58	68	69	63	58	74
		240	423	56	67	68	62	58	73
1800 (1720)	300	526	60	70	71	65	58	74	
	365	638	62	72	73	68	59	75	
	240	355	53	65	66	60	57	72	
concrete masonry bricks (DIN 18153)	1800 (1720)	200	470	58	68	69	64	58	73
		250	585	61	71	72	67	58	74
		150	355	53	65	66	60	57	72
concrete (DIN 1045)	2400 (2300)	200	470	58	68	69	64	58	73
		250	585	61	71	72	67	58	74
		150	355	53	65	66	60	57	72

Separating component - sound reduction index $R_{w,R}$

Flanking component longitudinal sound reduction index $R_{L,w,R}$



Knauf Furrings / Installation Shaft Walls W623, W625, W626, W653

Technical data of solid wall (exterior wall)				U value (calculation according to DIN 4108)					
material including 20 mm lime cement exterior plaster	density material kg/m ³	thermal conductivity value (λ_R) W/(m K)	thick- ness mm	solid wall alone without insulation W/(m ² K)	solid wall with furring				
					with insulation (WLG 040)				
					30 mm	40 mm	50 mm	60 mm	80 mm
					W/(m ² K)				
autoclaved aerated concrete high precision bricks (DIN 4165) glued	500	0.16	250	0.57	0.39	0.36	0.33	0.30	0.26
			300	0.48	0.35	0.32	0.30	0.28	0.24
			365	0.40	0.30	0.28	0.26	0.25	0.22
	700	0.21	250	0.72	0.46	0.41	0.37	0.34	0.29
			300	0.62	0.41	0.37	0.34	0.31	0.27
			365	0.52	0.36	0.33	0.31	0.29	0.25
light weight perforated bricks (DIN 105) type W ₁ with light weight mortar	800	0.33	240	1.09	0.58	0.50	0.45	0.40	0.34
			300	0.91	0.52	0.46	0.41	0.38	0.32
			365	0.77	0.47	0.42	0.38	0.35	0.30
light weight perforated bricks (DIN 105), type A and B, with light weight mortar	800	0.39	240	1.24	0.62	0.53	0.47	0.42	0.35
			300	1.04	0.56	0.49	0.44	0.40	0.33
			365	0.89	0.52	0.46	0.41	0.37	0.31
solid bricks/ perforated bricks/ high strength bricks (DIN 105) with ordinary mortar	1200	0.50	240	1.49	0.67	0.58	0.50	0.46	0.37
			300	1.26	0.62	0.54	0.48	0.43	0.35
			365	1.08	0.58	0.50	0.45	0.40	0.34
	1400	0.58	240	1.65	0.71	0.60	0.52	0.46	0.38
			300	1.41	0.66	0.56	0.50	0.44	0.36
			365	1.22	0.61	0.53	0.47	0.42	0.35
	1600	0.68	240	1.83	0.74	0.62	0.54	0.47	0.38
			300	1.58	0.69	0.59	0.51	0.46	0.37
			365	1.37	0.65	0.56	0.49	0.44	0.36
	1800	0.81	240	2.04	0.77	0.65	0.56	0.49	0.39
			300	1.78	0.73	0.62	0.53	0.47	0.38
			365	1.55	0.69	0.59	0.51	0.45	0.37
lightweight hollow blocks (DIN 18151) 2-k-units, width ≤ 240 mm 3-k-units, width ≤ 300 mm 4-k-units, width ≤ 365 mm	800	0.39	240	1.24	0.62	0.54	0.47	0.42	0.35
			300	1.04	0.56	0.49	0.44	0.40	0.33
			365	0.89	0.52	0.46	0.41	0.37	0.31
	1000	0.49	240	1.47	0.67	0.57	0.50	0.45	0.36
			300	1.24	0.62	0.54	0.47	0.42	0.35
			365	1.07	0.57	0.50	0.44	0.40	0.33
	1200	0.60	240	1.69	0.71	0.60	0.52	0.46	0.38
			300	1.44	0.67	0.57	0.50	0.44	0.36
			365	1.25	0.62	0.54	0.47	0.42	0.35
1800	0.99	240	1.93	0.75	0.63	0.55	0.48	0.39	
		365	1.70	0.71	0.61	0.53	0.47	0.38	
concrete masonry bricks (DIN 18153)	1200	0.56	240	1.61	0.70	0.60	0.52	0.46	0.37
			300	1.37	0.65	0.56	0.49	0.44	0.36
	1400	0.70	240	1.87	0.74	0.63	0.54	0.48	0.39
			300	1.61	0.70	0.60	0.52	0.46	0.37
	1600	0.79	240	2.01	0.77	0.64	0.55	0.49	0.39
			300	1.75	0.72	0.61	0.53	0.47	0.38
	1800	0.99	240	2.30	0.80	0.67	0.57	0.50	0.40
			300	2.02	0.77	0.64	0.55	0.49	0.39
concrete (DIN 1045)	2400	2.10	150	3.78	0.93	0.76	0.64	0.55	0.43
			200	3.47	0.91	0.74	0.63	0.54	0.43
			250	3.20	0.89	0.73	0.62	0.53	0.42
granite masonry	2800	3.50	400	3.25	0.90	0.73	0.62	0.54	0.42
			600	2.74	0.85	0.70	0.60	0.52	0.41
sandstone masonry	2600	2.30	400	2.73	0.85	0.70	0.60	0.52	0.41
			600	2.20	0.79	0.66	0.57	0.50	0.40

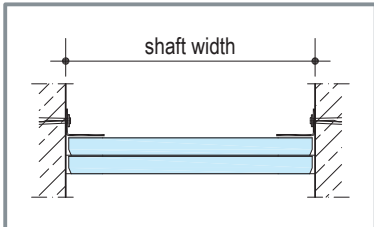
Note

Depending on the structure of the exterior wall, an additional vapor barrier/ vapor seal can be necessary. For this purpose Knauf offers boards with laminated vapor seals on the rear.

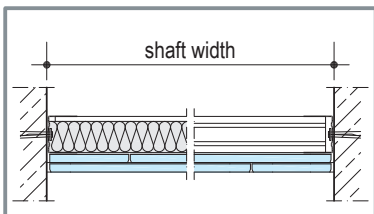
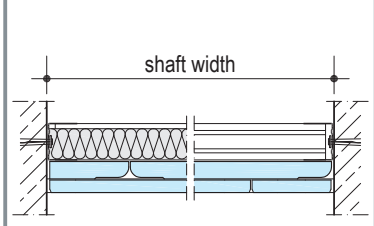
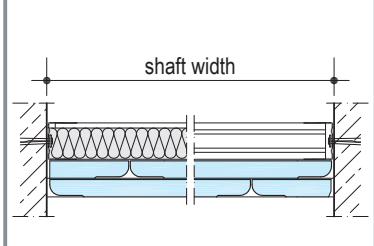
Knauf Independent Furrings / Installation Shaft Walls W628, W630

System	Fire rating	Cladding	Insulation	Studs	Proof	
		type/ building material class	minimum thickness mm	type min. density kg/m ³ min. thick- ness mm	max. spacing -a- cm	

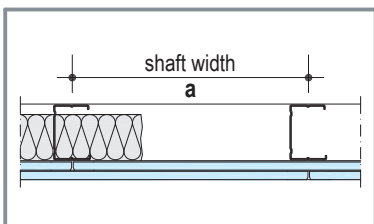
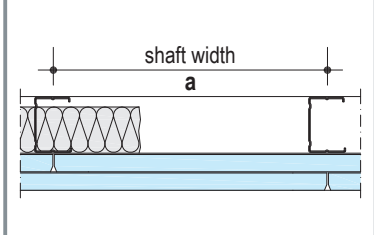
W628 Knauf Installation Shaft Wall without metal stud frame, free spanning across shaft width (type A)

	F90	Knauf Solid Boards GKF A2	2x 25	without or mineral wool G	shaft width max. 200	ABP P-3078/0689
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W630 Knauf Installation Shaft Wall with metal crossbars

	F30		2x 12,5			
	F60	Fire Resistant Boards / Knauf Solid Boards GKF A2	25 + 18	without or mineral wool G	shaft width max. 500 spacing of crossbars 31.25 1)	ABP P-3969/2222
	F90		2x 25			

W628 W629 Installation Shaft Wall with metal stud frame (type B)

	F30	Fire Resistant Boards / Knauf Solid Boards GKF A2	2x 12,5	without or mineral wool G	Knauf CW stud 62.5	ABP P-3077/0679
	F90		2x 25		Knauf CW stud 100	ABP P-3078/0689

Mineral wool insulation according to DIN EN 13162, chapter 3.1.1

G building material class A

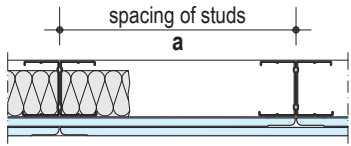
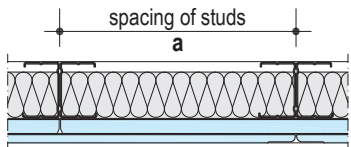
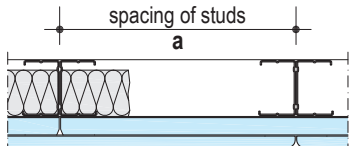
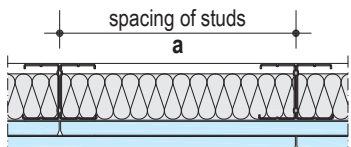
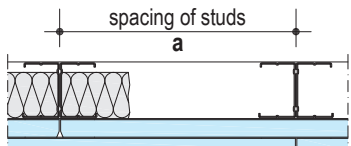
Note

- 1) type F60 / F90:
spacing of crossbars 62.5 cm allowed
with screw-attached double metal crossbars

Knauf Independent Furrings / Installation Shaft Walls W629

System	Fire rating	Cladding		Insulation		Studs	Proof
		type/ building material class	minimum thickness mm	type	min. density kg/m ³	min. thick- ness mm	max. spacing -a- cm

W629 Knauf Installation Shaft Wall with double metal stud frame

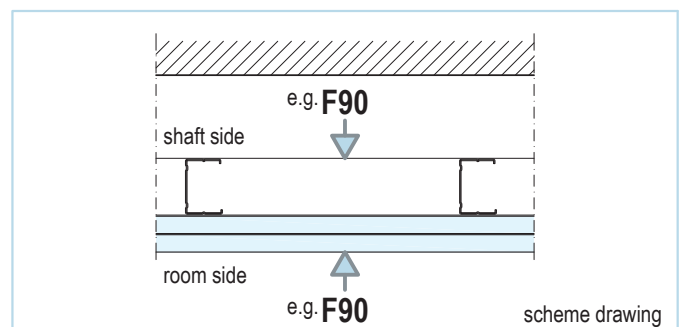
	F30	2x 12.5	without or mineral wool					
			G					
	F60	20+12.5	mineral wool	40 30	40 60			
			S					
	F90	25+18	without or mineral wool			Knauf CW stud 62.5	ABP P-3079/0699	
			G					
	F90	2x 20	mineral wool	40 30	40 60			
			S					
	F90	2x 25	without or mineral wool					
			G					

Mineral wool insulation according to DIN EN 13162, chapter 3.1.1

S building material class A melting point $\geq 1000^{\circ}\text{C}$ according to DIN 4102-17	G building material class A
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Note

For all Knauf Installation Shaft Walls (W628 / W629 / W630) fire protection is effective from room side and from shaft side (systems W628 + W630 see page 4)

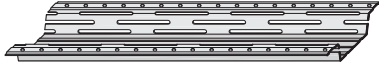


With Resilient Channels and timber stud frame / single or double layer vertical cladding

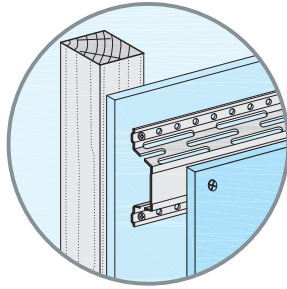
Wall heights

maximum wall height 4.1 m depending on existing wooden structure

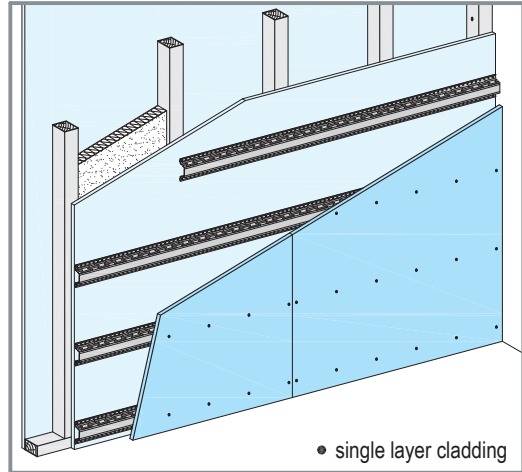
Resilient Channel 60x27



Fix to existing wooden structure with Knauf Drywall Screws TN 3.5x35



12.5 mm / 2x 12.5 mm Knauf boards



• single layer cladding

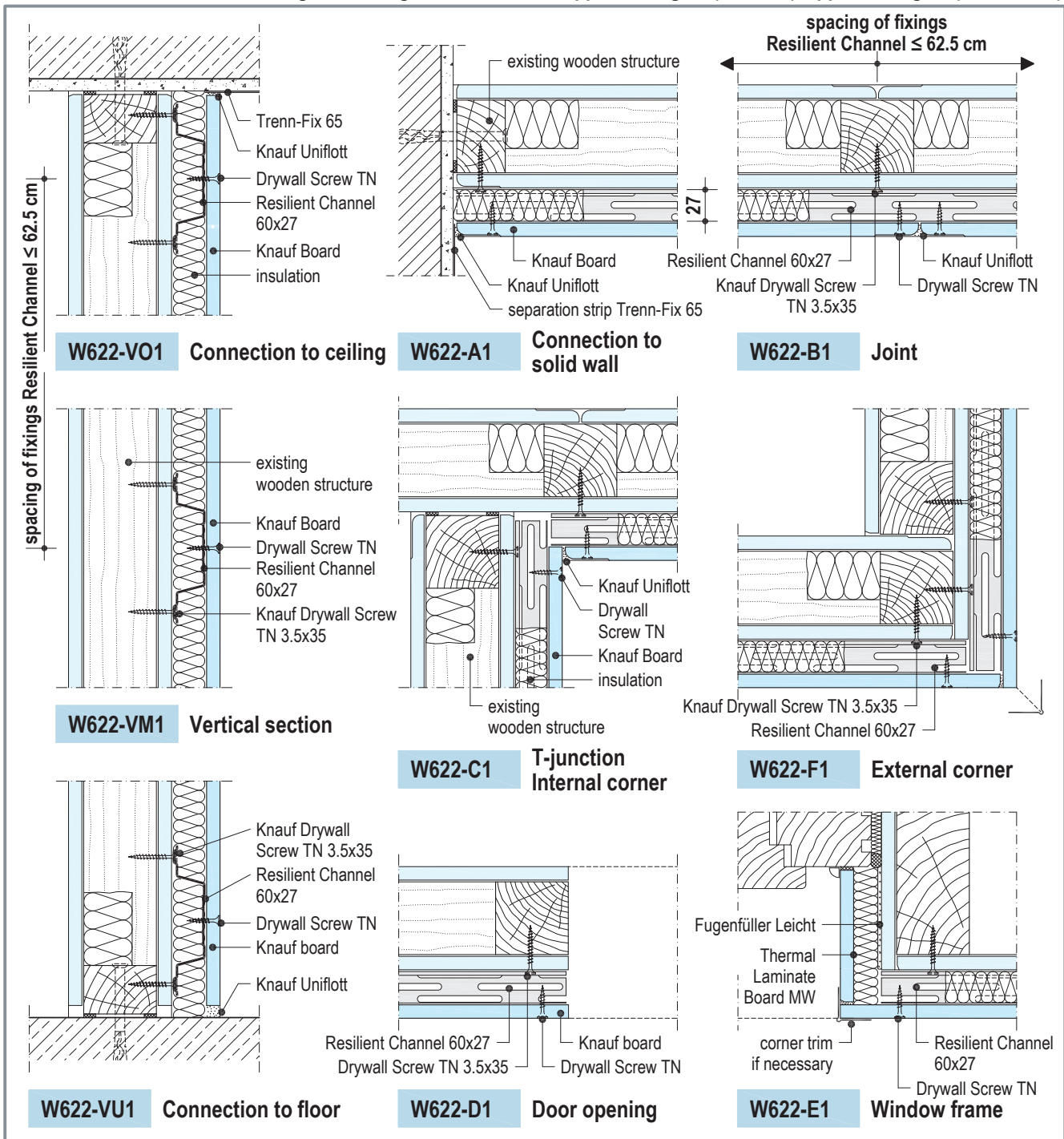
Note

For furrings on masonry:

Fix Resilient Channel 60x27 to masonry with suitable anchors (e.g. nailable plug).

Details scale 1:5

Weight of furring (without insulation) approx. 13 kg/m² (12.5 mm), approx. 23 kg/m² (2x 12.5 mm)



Knauf Furring

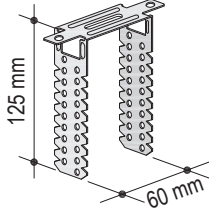
W623

With metal stud frame: fixed directly, single or double layer cladding

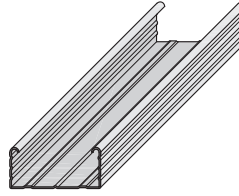
Wall heights

maximum wall height 10 m

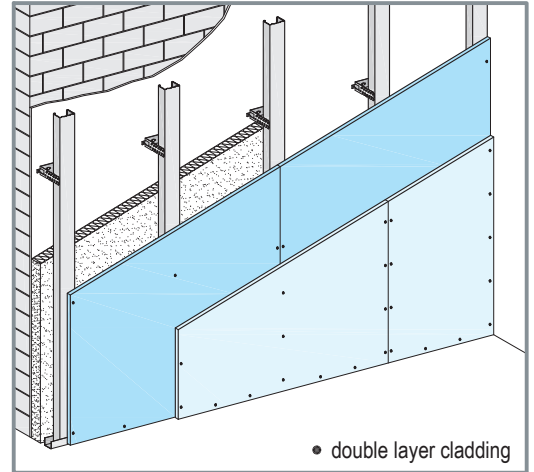
Universal Bracket
for CD 60x27



CD channel 60x27



12.5 mm / 2x 12.5 mm Knauf Boards



Cut or bend Universal Bracket to necessary length.

Details scale 1:5

Weight of furring (without insulation) approx. 13 kg/m² (12.5 mm), approx. 23 kg/m² (2x 12.5 mm)

spacing of Universal Brackets ≤ 1500 mm

Achsabstand ≤ 62,5 cm

≥ 27,5 mm

W623-VO1 Connection to ceiling

W623-A1 Internal corner

W623-E1 External corner

W623-VM1 Vertical section

W623-B1 T-junction and joint

W623-C1 T-junction with angle profile

W623-VU1 Connection to floor

W623-D1 Window frame with W611

W623-D2 Window frame with W624

Labels in diagrams: Trenn-Fix 65, Knauf Uniflott, Nailable Plug, UD channel 28x27, Acoustical Sealant, CD channel 60x27, Knauf Boards, UD channel 28x27, CD channel 60x27, Universal Bracket, Nailable Plug, Sealing Tape section, Knauf Uniflott, Drywall Screw TN, Metal Screw LN or blind metal rivet, insulation, CD channel 60x27, Universal Bracket fixed to CD channel with metal screw LN 3.5x9 mm, Drywall Screw TN, Knauf Board, Uniflott, Acoustical Sealant, cavity dowel, CW stud, UD channel, angle profile, insulation, Drywall Screw TN, UD channel, Knauf Boards, UW runner, Fugenfüller Leicht, Thermal Laminate Board MW W624, CD channel 60x27, Drywall Screw TN, Perfix, Knauf Lining W611, Drywall Screw TN, corner trim if necessary.

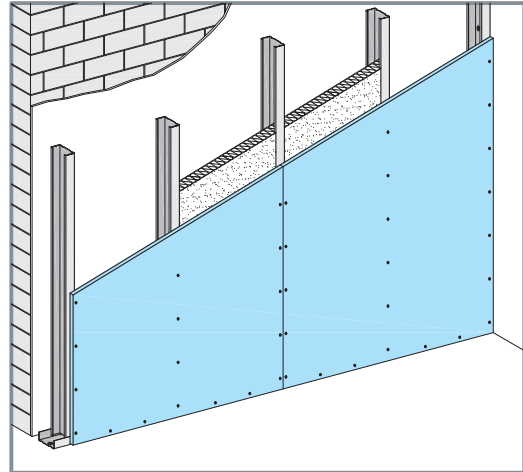
Independent Furring/Installation Shaft Wall W625

With metal stud frame / single layer vertical cladding

Wall heights bold values = max. heights acc. to DIN 18183

Stud	Spacing of studs	Maximum wall heights installation zone (definition pg.19)	
		1	2
metal thickness 0.6 mm cm			
Knauf stud CW 75	62.5	3	2.5
	41.7	3.5	3
	31.25	4	3.5
Knauf stud CW 100	62.5	4	3
	41.7	4.5	3.5
	31.25	5	4

12.5 mm Knauf Board



Details scale 1:5

Weight of furring (without insulation) approx. 14 kg/m²

W625-VO1 Ceiling connection

W625-A1 Internal corner
spacing of studs ≤ 62.5 cm

W625-E1 External corner

W625-VM1 Joint

W625-B1 T-junction and joint

W625-C1 T-junction with angle profile

W625-VU1 Connection to floor

W625-D1 Window frame with W611




W625-F1 Access Panel
(see TDS W25)

Labels in diagrams include: Trenn-Fix 65, Knauf Uniflott, Acoustical Sealant, UW runner, Nailable Plug, Knauf CW stud, Knauf Board, Drywall Screw TN, Knauf Uniflott, UW runner, Knauf CW stud insulation, Knauf Board, Knauf CW stud, Knauf Uniflott, Drywall Screw TN, Knauf Board, Knauf CW stud, insulation, horizontal joint fill with Joint Tape, cavity dowel, Uniflott angle profile, Alutop Access Panel (W250) installation according to assembly instructions, clearance 5, opening width of cladding ≥ 30.

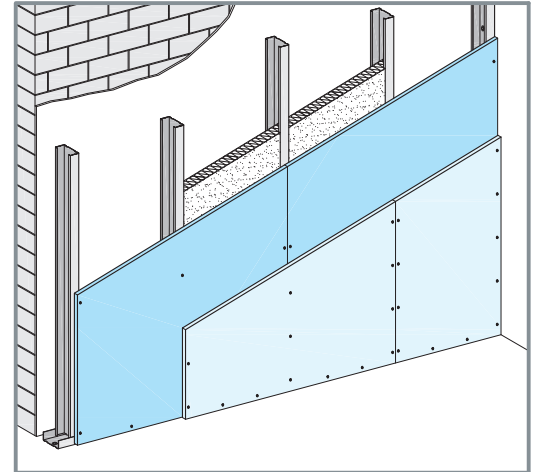
Independent Furring/Installation Shaft Wall W626

With metal stud frame / double layer vertical cladding

Wall heights bold values = max. heights acc. to DIN 18183

Stud	Spacing of studs	Maximum wall heights installation zone (definition pg.19)	
		1	2
	metal thickness 0.6 mm cm	m	m
 Knauf stud CW 50	62.5	2.6	-
	41.7	3	-
	31.25	3.3	-
 Knauf stud CW 75	62.5	3.5	3
	41.7	4	3.5
	31.25	4.5	4
 Knauf stud CW 100	62.5	4.25	3.25
	41.7	5	4
	31.25	5.5	4.5

2x 12.5 mm Knauf Boards



Details scale 1:5

Weight of furring (without insulation) approx. 14 kg/m²

W626-VO1 Ceiling connection

W626-A1 Internal corner
spacing of studs $\leq 62,5$ cm

W626-E1 External corner

W626-VM1 Joint

W626-B1 T-junction and joint

W626-C1 T-junction with angle profile

W626-VU1 Connection to floor

W626-F1 Access Panel (see TDS W25)



W626-D1 Window frame with W624

Labels in diagrams include: Trenn-Fix 65, Knauf Uniflott, Acoustical Sealant, Nailable Plug, UW runner, Knauf CW stud, Knauf Boards, Drywall Screw TN, Knauf Uniflott, UW runner, Knauf CW stud insulation, Knauf CW stud, Knauf Boards, Knauf CW stud, insulation, Knauf Uniflott, Drywall Screw TN, Knauf Boards, Knauf CW stud, Knauf Uniflott, Acoustical Sealant, cavity dowel, Knauf CW stud, Drywall Screw TN, Uniflott angle profile, insulation, UW runner, Alutop Access Panel (W250), installation according to assembly instructions, Knauf CW stud, Knauf CW stud, Nailable Plug, UW runner, Acoustical Sealant, Drywall Screw TN, Knauf Uniflott, Fugenfüller Leicht, Thermal Laminate Board MW W624, Knauf Uniflott, Drywall Screw TN, clearance, opening width of cladding ≥ 30 .

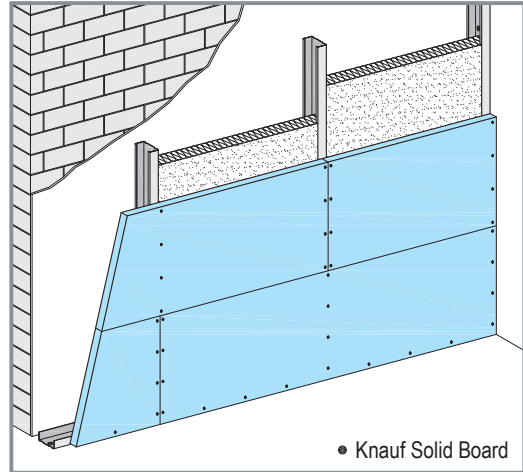
Independent Furring/Installation Shaft Wall W653

With metal stud frame / single layer horizontal cladding

Wall heights

Stud	Spacing of studs	Maximum wall heights	
		installation zone (definition pg.19)	
		1	2
		m	m
metal thickness 0.6 mm cm			
 Knauf stud CW 75	100	2.6	-
	62.5	3	2.6
	41.7	3.5	3
 Knauf stud CW 100	31.25	4	3.5
	100	3.5	2.6
	62.5	4	3
	41.7	4.5	3.5
	31.25	5	4

20 / 25 mm Knauf Panel Board or Solid Board



Details scale 1:5

Weight of shaft wall (without insulation) approx. 21 kg/m² (20 mm), approx 24 kg/m² (25 mm)

W653-VO1 Ceiling connection
 Labels: Trenn-Fix 65, Knauf Uniflott, Acoustical Sealant, UW runner, Nailable Plug, Knauf CW stud

W653-A1 Internal corner
 Labels: Knauf Uniflott, Drywall Screw TN, Knauf CW stud, Panel Board or Solid Board 20 mm / 25 mm

W653-D1 External corner
 Labels: UW runner, Knauf CW stud, insulation, Uniflott + Joint Tape

W653-VM1 Joint
 Labels: insulation, Uniflott, Drywall Screw TN 3.5x35, Solid Board 20 mm / 25 mm

W653-VM2 Joint
 Labels: Panel Board 20 mm, Drywall Screw TN 3.5x35, direction of installation

W653-B1 T-junction
 Labels: Uniflott, Acoustical Sealant, cavity dowel, Knauf CW stud, e.g. W353

W653-E1 Connect. to existing metal stud partition
 Labels: insulation, Knauf Uniflott, Trenn-Fix 65, Alutop Access Panel (W258) installation according to assembly instructions

W653-VU1 Connection to floor
 Labels: e.g. Solid Board, Knauf CW stud, Nailable Plug, UW runner, Acoustical Sealant, Drywall Screw TN 3.5x35, Knauf Uniflott

W653-C1 Access Panel (see TDS W25 Knauf Access Panels)

spacing of studs ≤ 100 cm

opening width of cladding (clearance + 2x 5 mm)

clearance ≥ 30

Independent Furring/Installation Shaft Wall W628

Without frame construction / free spanning across shaft width / 2 layer horizontal cladding

NEW updated wall heights as per 2008-11

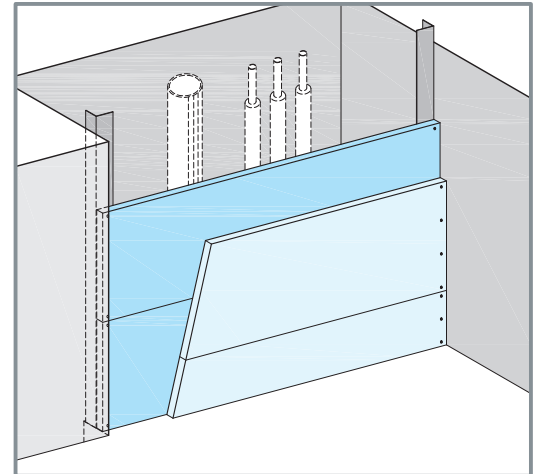
Wall heights / shaft width

Perimeter runner	Shaft width	Maximum wall heights
	cm	m
Corner angle 50x35x0.7		
Knauf CW stud 50x50x0.6	≤ 200	5
UW runner 50x40x0.6		
Type "Detail D"	Cumulative ≤ 200	5

Sound protection

In-sulation	R _{w,R}
mm	dB
no	33
40	41
60	42
Proof	
Knauf test report SW 01 083	
secure insulation against sliding	

2x 25 mm Knauf Solid Boards GKF



Details scale 1:5

Weight of shaft wall (without insulation) approx. 45 kg/m²

W628-VO1 Connection to ceiling

- Trenn-Fix 65
- Knauf Uniflott
- Drywall Screw TN 4.5x70, a ≤ 200 mm
- Drywall Screw TN 3.5x35, a ≤ 600 mm
- Knauf Solid Boards GKF, 2x 25 mm

W628-A1 Connection to solid wall

- Knauf Ceiling Steel Dowel a ≤ 50 cm
- Corner Angle 50x35x0.7 or Knauf CW stud 50x50x0.6 or UW runner 50x40x0.6
- Drywall Screw TN 3.5x35, a ≤ 600 mm
- Drywall Screw TN 4.5x70, a ≤ 200 mm
- Knauf Solid Boards GKF, 2x 25 mm
- Knauf Uniflott + Trenn-Fix 65

W628-VM1 Joint

- Knauf Ceiling steel dowel a ≤ 50 cm
- Corner Angle 50x35x0.7
- Knauf Uniflott
- Knauf Solid Boards GKF, 2x 25 mm

W628-C1 Access panel (see TDS W25 Knauf Access Panels for further information)

- metal stud as frame / change
- Alutop Access Panel (W258)
- continuous runner up to perimeter

90 clearance 90

opening width of cladding (clearance + 2x 90 mm)

installation acc. to assembly instructions

W628-VU1 Connection to floor

- Corner Angle 50x35x0.7
- Knauf Solid Board GKF, 2x 25 mm
- Knauf Uniflott

W628-D1 Corner "detail D"

- e.g. insulation (building material class A)
- UW runner
- Knauf CW stud
- blind metal rivet or Metal Screw LB 3.5x9.5 a ≤ 50 cm
- Flex Profile 100
- Knauf CW stud fill joint
- corner trim, if necessary

a + b ≤ 200 cm

2 a + b ≤ 200 cm

Independent Furring/Installation Shaft Wall W628

With metal stud frame / double layer horizontal cladding

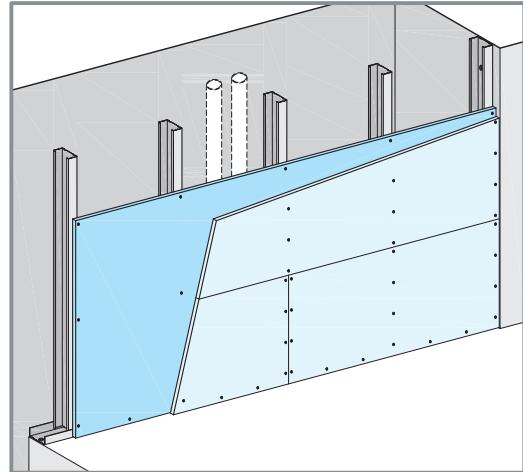
Wall heights bold values = max. heights acc. to DIN 18183

Sound protection

2x 12.5 mm Knauf Fire Resistant Boards GKF

Stud	Spacing of studs	Maximum wall heights installation zone	
		1	2
metal thickness 0.6 mm	cm	m	m
Knauf stud CW 75	62.5	3.5	3
	41.7	4	3.5
	31.25	4.5	4
Knauf stud CW 100	62.5	4.25	3.25
	41.7	5	4
	31.25	5	4.5

In-sulation	R _{w,R}
mm	dB
no	30
40	36
60	36
proof: Knauf test report SW 01 083	
secure insulation against sliding	



Details scale 1:5

Weight of shaft wall (without insulation) approx. 24 kg/m²

W628-VO2 Connection to ceiling

W628-A2 Connection to solid wall

W628-B2 Joint

W628-VM2 Joint

W628-D2 Corner

W628-VU2 Connection to floor

W628-C2 Access Panel (see TDS W25 Knauf Access Panels)

Labels in diagrams include: Trenn-Fix 65, Knauf Uniflott, Acoustical Sealant, UW runner, Ceiling Steel Dowel a ≤ 100 cm, Knauf CW stud, Knauf Boards GKF, 2x 12.5 mm, Nailable Plug, a ≤ 100 cm, Acoustical Sealant, Knauf CW stud, Uniflott + Trenn-Fix 65, spacing of studs, e.g. insulation (building material class A), Knauf CW stud, UW runner, Drywall Screw TN 3.5x35, a ≤ 250 mm, Joint Tape, Knauf Uniflott, Knauf CW stud, Drywall Screw TN 3.5x25, a ≤ 750 mm, Knauf Uniflott, Drywall Screw TN 3.5x35, a ≤ 250 mm, Knauf Boards GKF, 2x 12.5 mm, e.g. insulation (building material class A), Knauf Boards GKF, 2x 12.5 mm, UW runner, Knauf CW stud, blind metal rivet or Metal Screw LB 3.5x9.5; a ≤ 50 cm, Knauf CW stud, TN 3.5x25, a ≤ 250 mm (only for corners), TN 3.5x35, a ≤ 250 mm, fill joint, corner trim, if necessary, metal stud as frame / change, Alutop Access Panel (W258) installation according to assembly instructions, 90, clearance, opening width of cladding (clearance + 2x 90 mm).

Shaft Wall/Independent Furring F90 type B W628

With metal stud frame / double layer horizontal cladding

Wall heights

Stud	Spacing of studs	Maximum wall heights installation zone	
		1	2
metal thickness 0.6 mm	cm	m	m
Knauf stud CW 75	100	3	2.6
	62.5	3.5	3
	41.7	4	3.5
	31.25	4.5	4
Knauf stud CW 100	100	3.75	2.75
	62.5	4.25	3.25
	41.7	5	4
	31.25	5	4.5

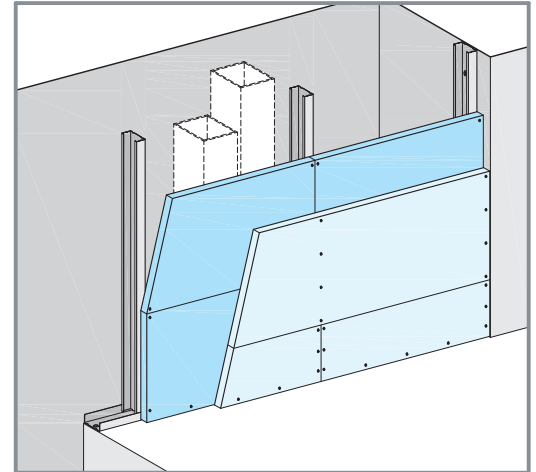
Sound protection

In- sulation	R _{w,R}
mm	dB
no	33
40	41
60	42

proof:
Knauf test report
SW 01 083

secure insulation
against sliding

2x 25 mm Knauf Solid Boards GKF



Details scale 1:5

Weight of shaft wall (without insulation) approx. 46 kg/m²

W628-VO3 Connection to ceiling

W628-A3 Connection to solid wall

W628-B3 Joint

W628-VM3 Joint

W628-D3 Corner

W628-VU3 Connection to floor

W628-C3 Access Panel (see TDS W25 Knauf Access Panels)

Shaft Wall/Independent Furring F30/F60/F90 W629

With screwed double metal stud frame / 2 layer cladding

Wall heights **NEW updated wall heights as per 2008-11**

Sound protection

Stud	Spacing of studs	Maximum wall heights installation zone (definition pg. 19)	
		1	2
metal thickness 0.6 mm	cm	m	m
Knauf studs 2x CW 50	62.5	4	3.5
	31.25	5	4.5
Knauf studs 2x CW 75	62.5	5.5	5
	31.25	5.6	5.6
Knauf studs 2x CW 100	62.5	5.6	5.6
	31.25	5.6	5.6

In-sulation secure against sliding	R _{w,R}				
	cladding (GKF)				
mm	2x 12.5	20+12.5	25+18	2x 20	2x 25
	dB	dB	dB	dB	dB
no	30	-	33	-	33
40	36	36	41	41	41
60	36	36	42	42	42

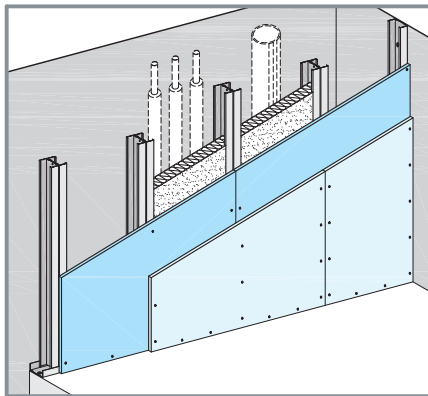
proof: Knauf test report SW 01 083

Weight of shaft walls:

(without insulation)

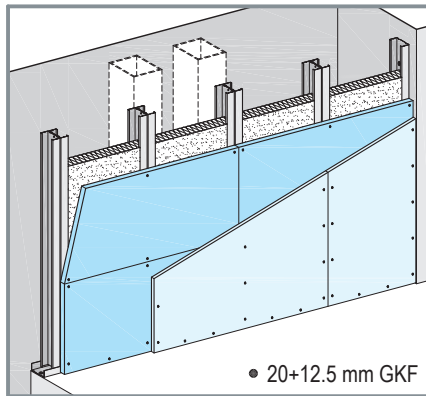
F30	2x 12.5 mm GKF:	approx. 26 kg/m ²
F60	20+12.5 mm GKF:	approx. 34 kg/m ²
F60	25+18 mm GKF:	approx. 43 kg/m ²
F90	2x 20 mm GKF:	approx. 42 kg/m ²
F90	2x 25 mm GKF:	approx. 48 kg/m ²

F30 2x 12.5 mm GKF



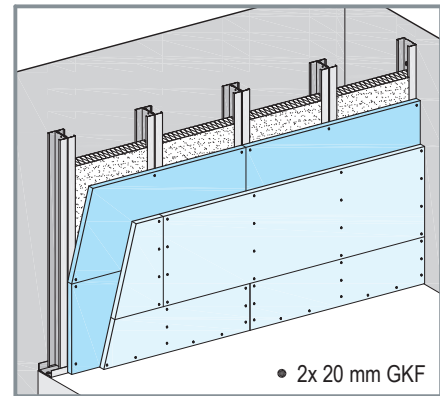
1st + 2nd layer cladding horizontal

F60 20+12.5 mm / 25+18 mm GKF



1st layer horizontal / 2nd layer vertical

F90 2x 20 mm / 2x 25 mm GKF

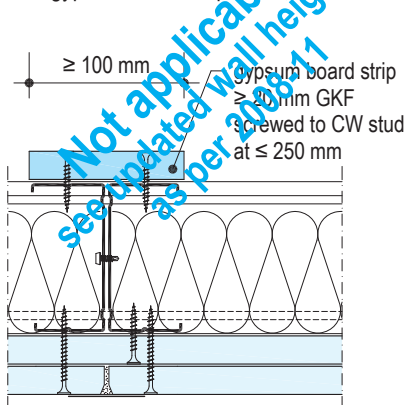


1st + 2nd layer cladding horizontal

Note on wall heights

for wall heights > 6.5 m:

screwed double CW studs with gypsum board strips



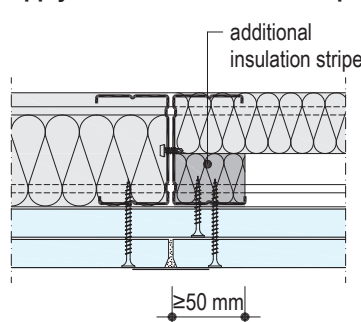
for wall heights > 5 m:

fix double CW stud to UW runner on floor and ceiling with metal screws LB 3.5x9,5 mm or blind metal rivets

Note on insulation

install insulation that is necessary for fire protection tight and secure against sliding (insulation type and thickness see also pg. 5)

if insulation thickness is more than 20 mm less than CW stud web width: apply additional insulation strip

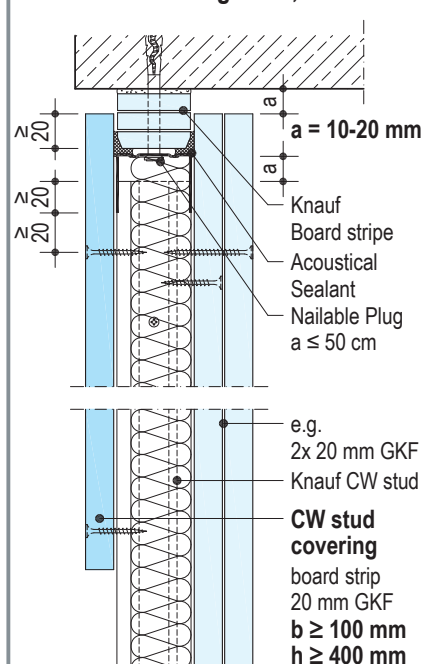


additional mineral wool strip for:

- CW stud 75 with 40 mm mineral wool
- CW stud 100 with 40 mm mineral wool
- CW stud 100 with 60 mm mineral wool

Deflection head

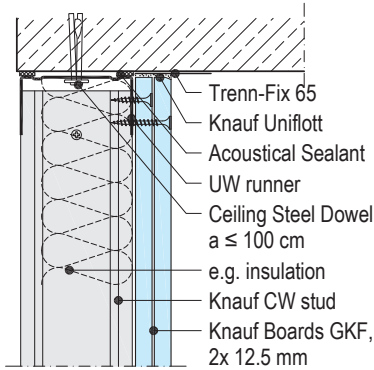
maximum wall height ≤ 5,0 m



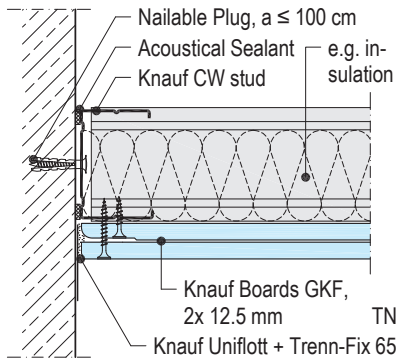
Shaft Wall/Independent Furring F30/F60/F90 W629

With screwed double metal stud frame / double layer cladding

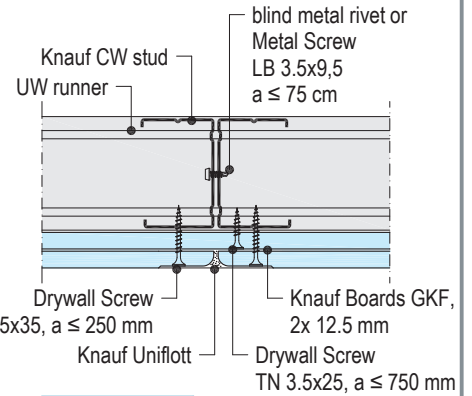
Details scale 1:5



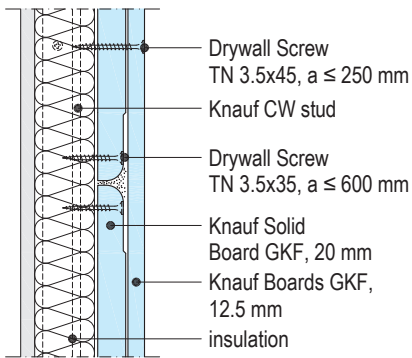
W629-VO2 Connection to ceiling (F30)



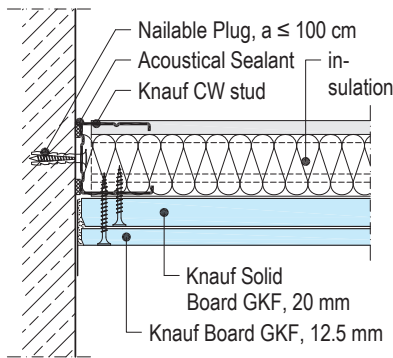
W629-A2 Connection to solid wall (F30)



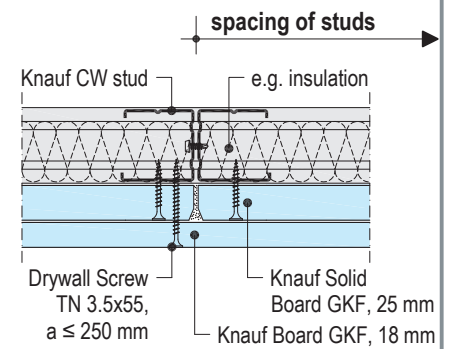
W629-B2 Joint (F30)



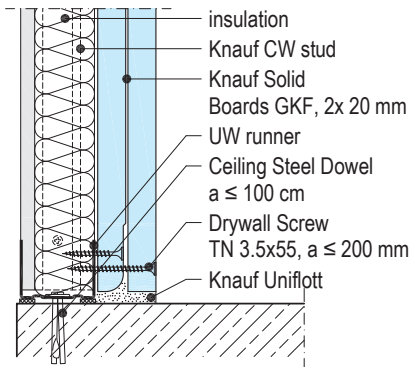
W629-VM3 Joint (F60)



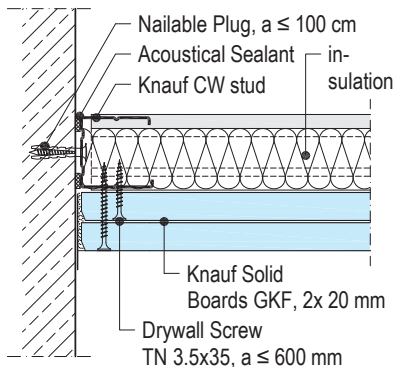
W629-A3 Connection to solid wall (F60)



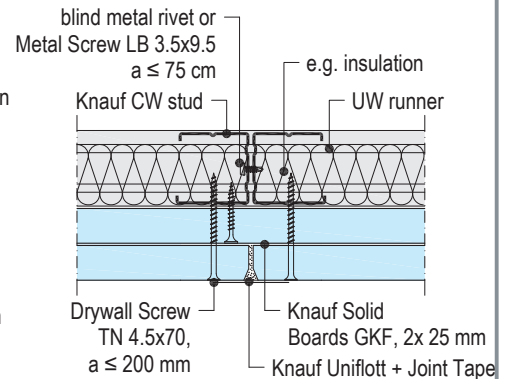
W629-B4 Joint (F60)



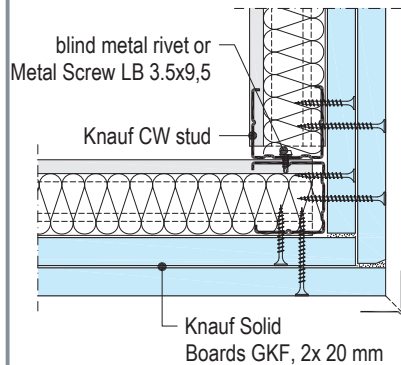
W629-VU5 Connection to floor (F90)



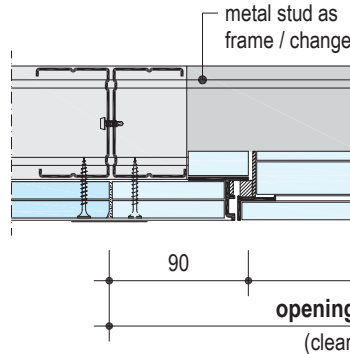
W629-A5 Connection to solid wall (F90)



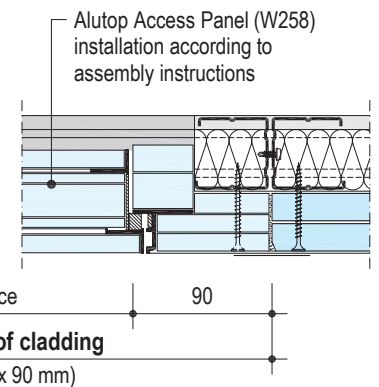
W629-B6 Joint (F90)



W629-D5 Corner (F90)



W629-C2 Access Panel (F30)



W629-C5 Access Panel (F90)




(see TDS W25 Knauf Access Panels)

Note For cladding and insulation see also page 5, "Fire Protection"

Shaft Wall/Independent Furring F30/F60/F90 W630

With metal crossbars / double layer cladding

Wall height / shaft width

Runner (crossbar)	Shaft width	Spacing of crossbars	Maximum wall heights
metal thickness 0.6 mm	cm	cm	m
 Knauf stud CW 50	≤ 300	31.25 ¹⁾	no limitation apply movement joints acc. to DIN 18181
 Knauf stud CW 75	≤ 400		
 Knauf stud CW 100	≤ 500		

1) F60/F90: spacing of crossbars 62.5 cm allowable with screwed double CW studs

Sound protection

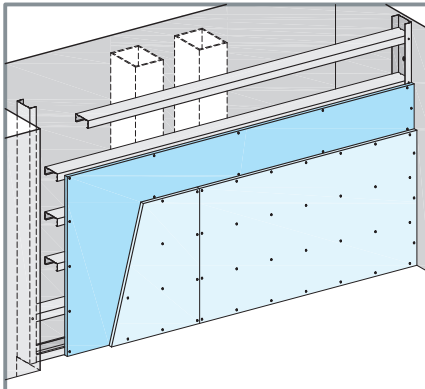
In-sulation (secure against sliding)	R _{w,R} cladding (GKF)		
	2x 12.5 mm	25+18 mm	2x 25 mm
no	30 dB	33 dB	33 dB
40	36 dB	41 dB	41 dB
60	36 dB	42 dB	42 dB

proof Knauf Test Report SW 01 083

Weight of shaft walls: (without insulation)

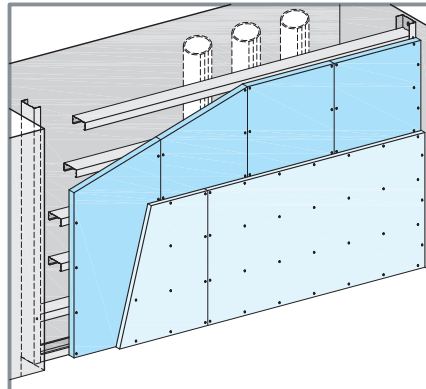
F30	2x 12.5 mm GKF:	approx. 26 kg/m ²
F60	25+18 mm GKF:	approx. 43 kg/m ²
F90	2x 25 mm GKF:	approx. 48 kg/m ²

F30 2x 12.5 mm GKF



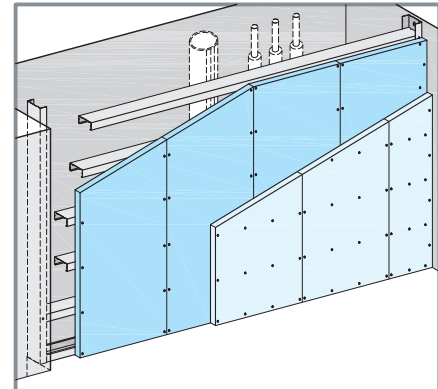
1st and 2nd layer horizontal cladding

F60 25+18 mm GKF



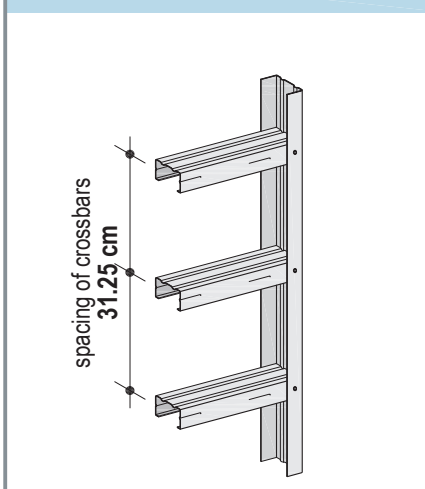
1st layer vertical/ 2nd layer horizontal cladding

F90 2x 25 mm GKF



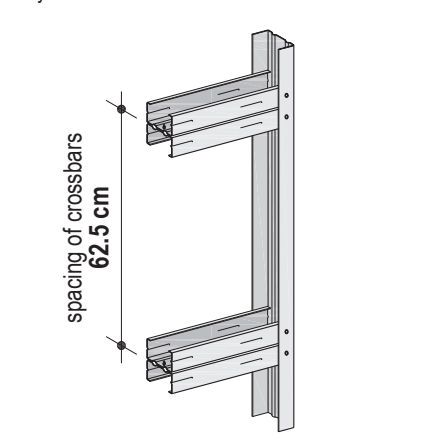
1st and 2nd layer vertical cladding

CW stud as crossbar

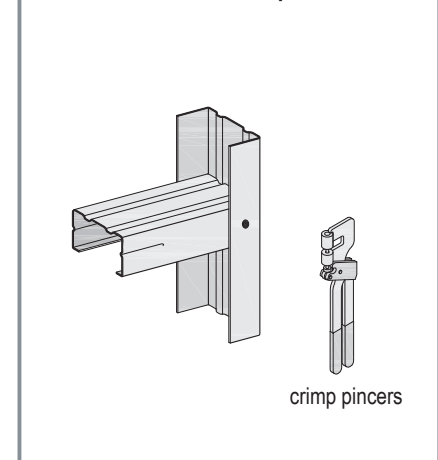


Screwed double CW stud as crossbar

only for fire resistance class F60/F90



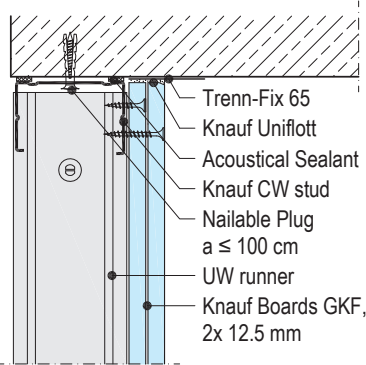
UW runner and Knauf CW studs connect with rivets/ crimp or screw



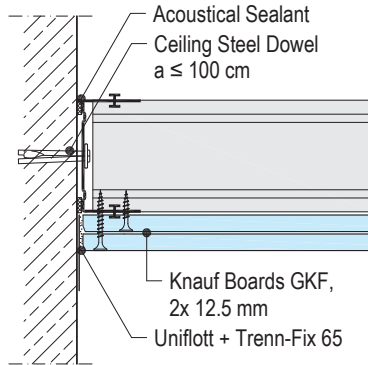
Shaft Wall/Independent Furring F30/F60/F90 W630

With metal crossbars / double layer cladding

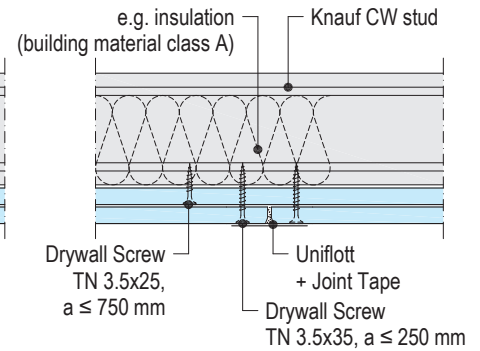
Details scale 1:5



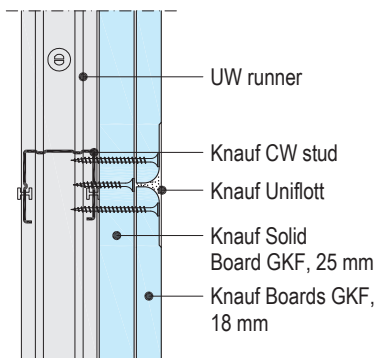
W630-VO1 Connection to ceiling (F30)



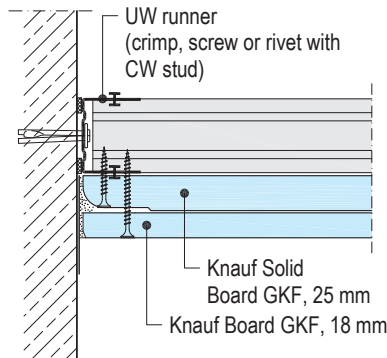
W630-A1 Connection to solid wall (F30)



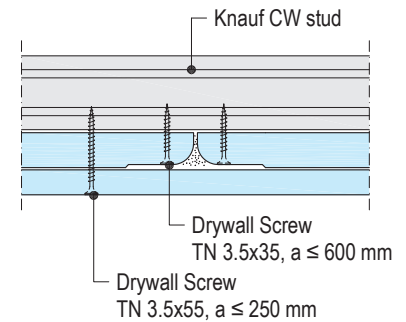
W630-B1 Joint (F30)



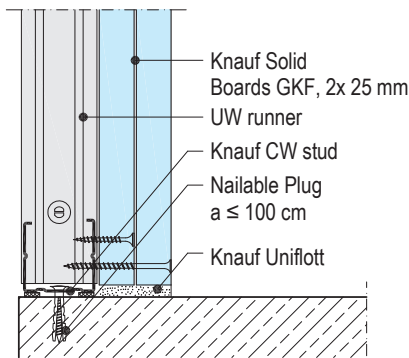
W630-VM2 Joint (F60)



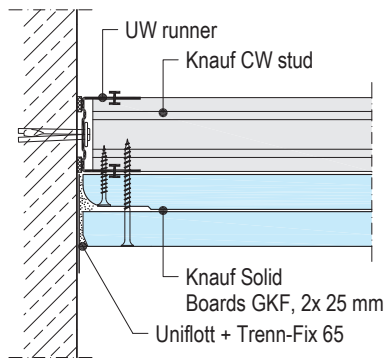
W630-A2 Connection to solid wall (F60)



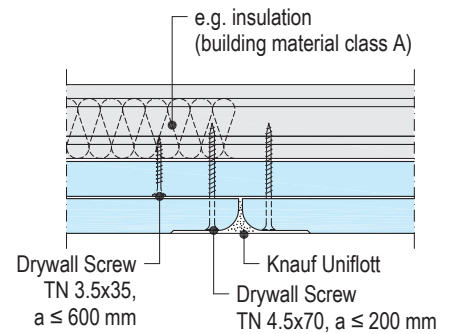
W630-B2 Joint (F60)



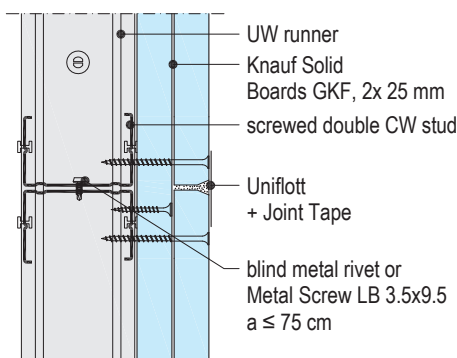
W630-VU3 Connection to floor (F90)



W630-A3 Connection to solid wall (F90)

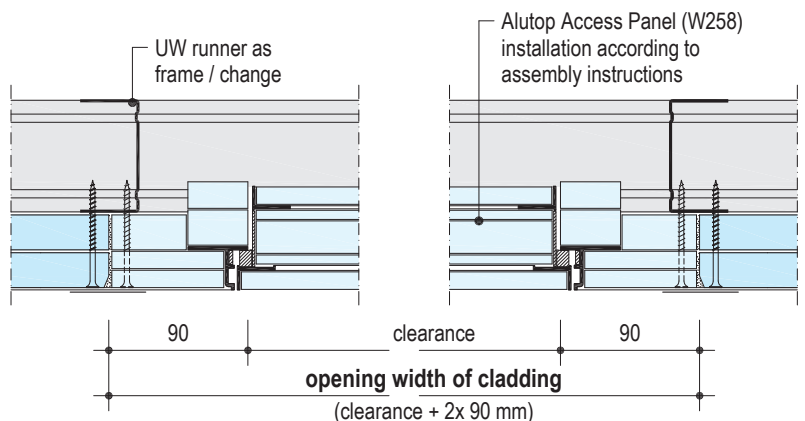


W630-B3 Joint (F90)



W630-VM3 Joint (F90)

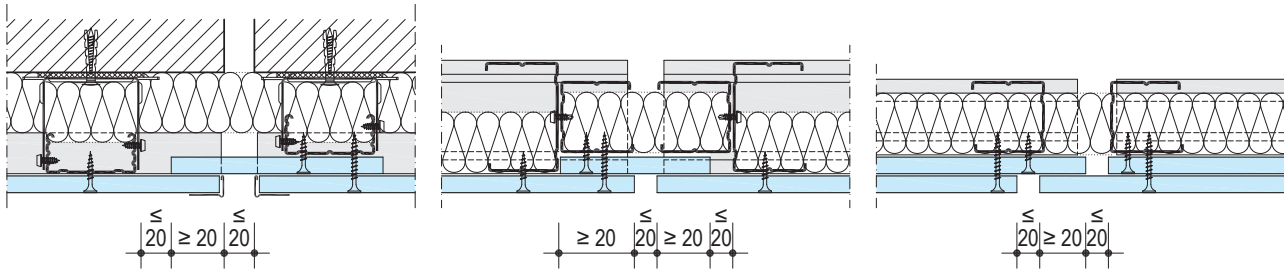
with screwed double CW studs



W630-C3 Access Panel (see TDS W25 Knauf Access Panels)

Movement joints / installation shaft / installation furring

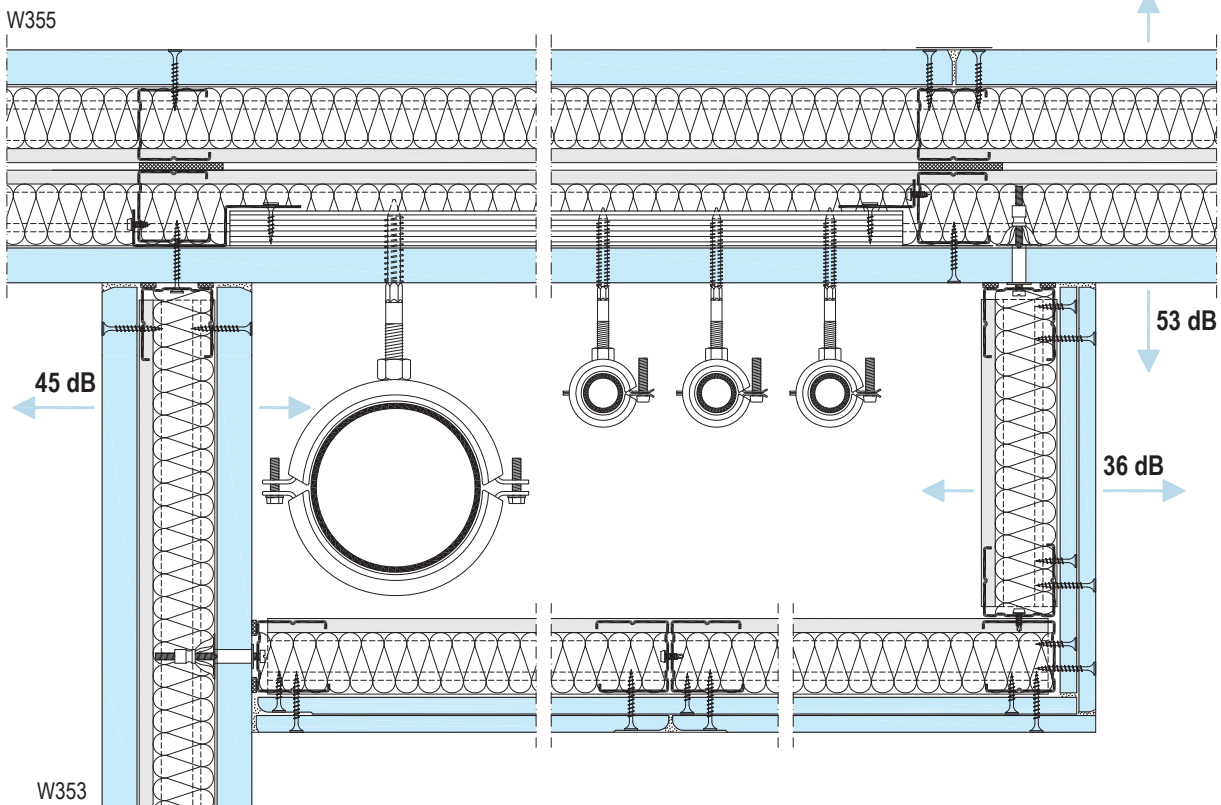
Details scale 1:5



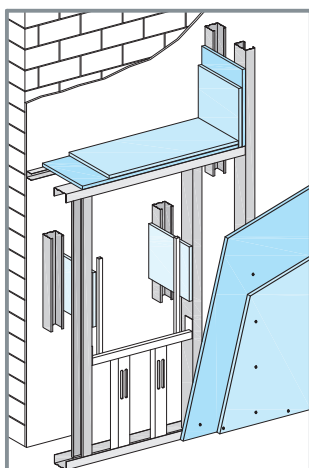
W623-BFU1 Movement joint

W625-BFU1 Movement joint

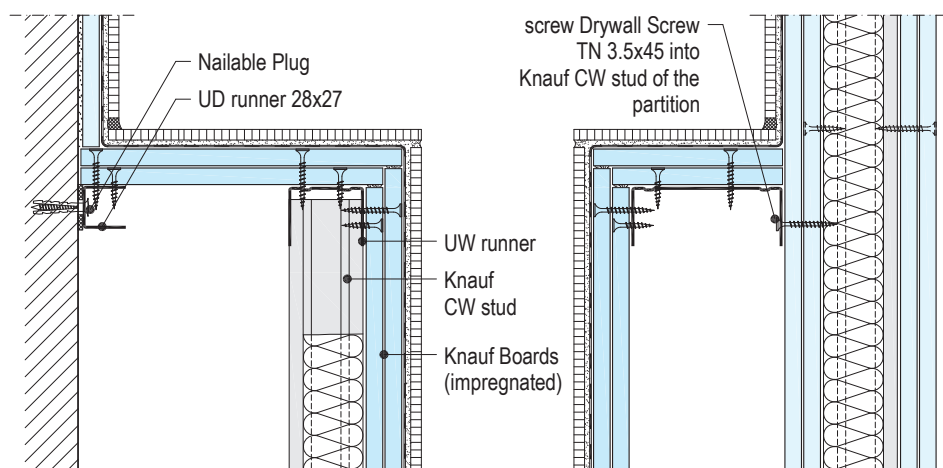
W626-BFU1 Movement joint



W626-SO8 Installation shaft wall



Installation furring



W626-SO1 Furring at medium height
e.g. for Toilet Pan Sanistand

W626-SO2 Furring at medium height
e.g. for Wash Basin Sanistand

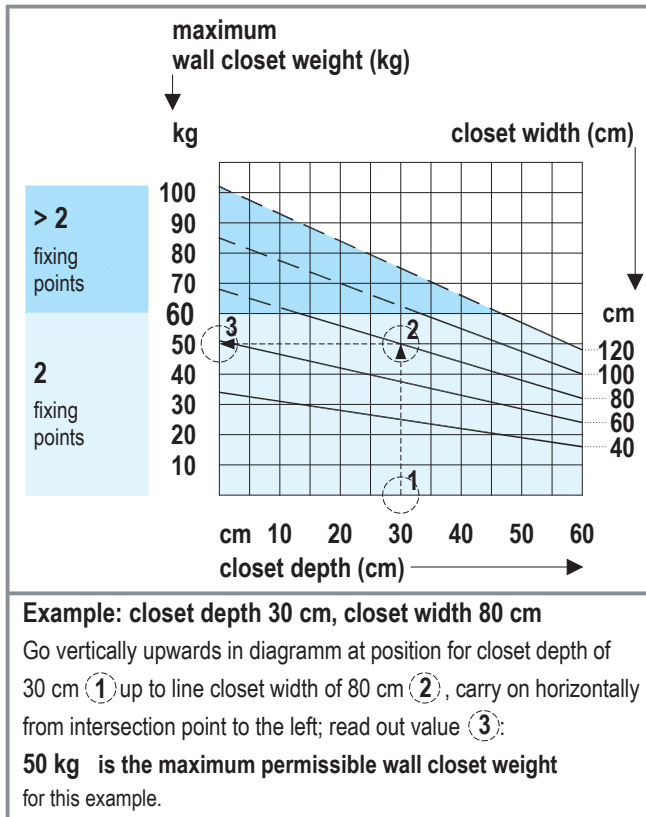
e.g. W112

Cantilever loads / installation zones / power sockets

Cantilever loads

up to 15 kg hook light items like e.g. pictures can be fixed with X-Hooks loading 5 kg loading 10 kg loading 15 kg	up to 0.4 kN/m dowel plastic cavity dowels metal cavity dowels wall closet closet height ≥ 30 cm closet width closet depth	up to 1.5 kN/m bearing stud/ traverses Cantilever loads above 0.4 kN/m up to 1,5 kN/m wall length are to be transferred into the metal stud frame via transverses
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Diagram: maximum cantilever loads up to 0.4 kN/m



Dowel loading - tension and shear stresses

thickness of cladding mm	plastic cavity dowel $\varnothing 8$ o $\varnothing 10$ mm kg	metal cavity dowel screw M5 od. M6 kg
12.5	25	30
$\geq 2 \times 12.5 / 25$	40	50

According to DIN 18183 cantilever loads up to 0.4 kN/m wall length can be applied to any position on independent furrings under consideration of the cantilever arm (closet height ≥ 30 cm) and excentricity (closet depth ≤ 60 cm). spacing of dowels ≥ 75 mm.

The fixing of cantilever loadshas to be done with at least 2 cavity dowels made of plastic or metal, e.g. Tox Universal, Fischer Universal, Molly Screwing Anchor.

Installation zones

Installation zone 1 Partitions in rooms where low numbers of persons gather. e.g. dwellings, hotels, office and hospital rooms including corridors and halls or similar.	Installation zone 2 Partitions in rooms where large numbers of persons gather. e.g. conference and meeting rooms, classrooms, auditoriums, exhibiton halls and salesrooms and rooms with floor height differences of ≥ 1 m.
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Installation of power sockets (scheme drawings)

Power sockets have to be covered with Knauf boards GKF at least as thick as the cladding.
 possible solutions:

Knauf Independent Furrings / Installation Shaft Walls W622, W623, W625, W626, W653

Consumption of Material per m ² furring without allowance for loss and waste.								
Amounts refer to an area of: H=2.75 m; L=4 m; A=11 m ² .								
Description	Unit	Amount as average value						
		W622		W623		W625	W626	W653
		thickness of cladding in mm						
<i>external material = printed in italics</i>		12.5	2x 12.5	12.5	2x 12.5	12.5	2x 12.5	20 / 25
Metal stud frame								
Resilient Channel 60x27; (length 4 m)	m	2.2	2.2	-	-	-	-	-
Connector for Resilient Channel	pcs	as req.	as req.	-	-	-	-	-
Knauf Drywall Screw TN 3.5x35 mm (fixing of Resilient Channel)	pcs	9	9	-	-	-	-	-
UD channel 28x27x0.6; (length 3 m)	m	-	-	0.7	0.7	-	-	-
CD stud 60x27x0.6	m	-	-	2	2	-	-	-
Universal Bracket for CD 60x27	pcs	-	-	0.7	0.7	-	-	-
Metal Screw LN 3.5x9 mm	pcs	-	-	1.4	1.4	-	-	-
Sealing Tape sections 70/3.2 mm, 75 mm long; (30 m roll)	m	-	-	0.1	0.1	-	-	-
alt. UW runner 50x40x0.6; (length 4 m)	-	-	-	-	-	-	-	-
alt. UW runner 75x40x0.6; (length 4 m)	m	-	-	-	-	0.7	0.7	0.7
alt. UW runner 100x40x0.6; (length 4 m)	-	-	-	-	-	-	-	-
alt. Knauf CW stud 50x50x0.6	-	-	-	-	-	-	-	-
alt. Knauf CW stud 75x50x0.6	m	-	-	-	-	2	2	1.25
alt. Knauf CW stud 100x50x0.6	-	-	-	-	-	-	-	-
or Knauf Acoustical Sealant; (pouch 550 ml)	pcs	-	-	0.2	0.2	0.3	0.3	0.3
Knauf Sealing Tape; (30 m roll)	-	-	-	-	-	-	-	-
resp. 30/3.2 mm	-	-	-	0.75	0.75	-	-	-
resp. 50/3.2 mm	m	-	-	-	-	-	-	-
resp. 70/3.2 mm	-	-	-	-	-	1.2	1.2	1.2
resp. 95/3.2 mm	-	-	-	-	-	-	-	-
alt. Knauf Nailable Plug "K" 6/35; (100 pcs. box)	pcs	-	-	1.6	1.6	1.6	1.6	1.6
alt. Knauf Nailable Plug "K" 6/50; (100 pcs. box) (for connections to plastered surfaces)	pcs	-	-	-	-	-	-	-
<i>insulation mm thick</i>	m ²	as req.	as req.	as req.	as req.	as req.	as req.	as req.
Cladding								
alt. Knauf Board GKB; 12.5 mm	-	1	2	1	2	1	2	-
alt. Knauf Board GKBI (impregnated); 12.5 mm	-	-	-	-	-	-	-	-
alt. Knauf Solid Board GKF; 20 mm	-	-	-	-	-	-	-	-
alt. Knauf Solid Board GKFI (impregnated); 20 mm	m ²	-	-	-	-	-	-	1
alt. Knauf Panel Board GKF; 20 mm	-	-	-	-	-	-	-	-
alt. Knauf Panel Board GKFI (impregnated); 20 mm	-	-	-	-	-	-	-	-
alt. Knauf Solid Board GKF; 25 mm	-	-	-	-	-	-	-	-
alt. Knauf Solid Board GKFI (impregnated); 25 mm	-	-	-	-	-	-	-	-
Knauf Drywall Screws; (fixing of cladding)	-	-	-	-	-	-	-	-
TN 3.5 x 25 mm	pcs	11	6	14	6	14	6	-
TN 3.5 x 35 mm	-	-	11	-	14	-	14	13
Jointing								
alt. Knauf Uniflott; (5 kg/25 kg sack)	-	0.25	0.4	0.25	0.4	0.25	0.4	0,35
or Knauf Uniflott impregnated; (5 kg sack)	-	-	-	-	-	-	-	-
or Knauf Jointfiller Super; (20 kg sack) (for machine filling with Ames machine)	kg	0.3	0.5	0.3	0.5	0.3	0,5	-
or Knauf Fugenfüller Leicht; (5 kg/10 kg/25 kg sack)	-	0.25	0.4	0.25	0.4	0.25	0,4	-
Knauf Joint Tape; (23 m/75 m/150 m roll)	m	as req.	as req.	as req.	as req.	as req.	as req.	as req.
Trenn-Fix 65, self-adhesive; (50 m roll)	m	as req.	as req.	as req.	as req.	as req.	as req.	as req.
Edge Trim 23/15; (length 2.75 m)	m	-	-	-	-	-	-	-
Corner Trim 31/31; (length 2.6 m/3 m)	m	as req.	as req.	as req.	as req.	as req.	as req.	as req.
Alux Edge Trim, width 52 mm; (30 m coil)	m	-	-	-	-	-	-	-

Knauf Installation Shaft Walls / Independent Furrings W628, W629, W630

Consumption of Material per m² Furring without allowance for loss and waste.

Amounts refer to an area of: W628 type A: H=2.75 m; L=2 m; A=5.5 m² W628 type B / W629 / W630: H=2.75 m; L=4 m; A=11 m²

Description	Unit	Amount as average value					
		W628		W629		W630	
		(type A) F90	(type B) F30	(type B) F90	F30	F90	F30
<i>external material = printed in italics</i>		2x 25 GKF	2x 12.5 GKF	2x 25 GKF	2x 12.5 GKF	2x 20 GKF	2x 12.5 GKF
Metal stud frame							
Angle Profile 50x35x0.7 alternativ CW 50 resp. UW 50	m	1	-	-	-	-	-
alt. UW runner 50x40x0.6; (length 4 m)							
alt. UW runner 75x40x0.6; (length 4 m)	m	-	0.7	0.7	0.7	0.7	0.5
alt. UW runner 100x40x0.6; (length 4 m)	m	-					
alt. Knauf CW stud 50x50x0.6							
alt. Knauf CW stud 75x50x0.6	m	-	2	1.25	3.5	3.5	3.6
alt. Knauf CW-Profil 100x50x0,6	m	-					
Metal Screw LB 3.5x9.5 mm (connection of double studs)	pcs	-	-	-	2.7	2.7	-
<i>blind metal rivet</i> alternative: LB 3.5x9.5 or crimp (connection CW stud to UW runner)	pcs	-	-	-	-	-	2.9
or Knauf Acoustical Sealant; (pouch, 550 ml)	pcs	-	0.3	0.3	0.3	0.3	0.3
or Knauf Sealing Tape; (30 m roll)							
resp. 50/3.2 mm	m	-	-	-	1.2	1.2	-
resp. 70/3.2 mm	m	-	1.2	1.2	1.2	1.2	1.2
resp. 95/3.2 mm	m	-					
alt. Knauf Nailable Plug "K" 6/35; (100 pcs. box)	pcs	-	0.7	0.7	0.7	0.7	0.9
alt. Knauf Nailable Plug "K" 6/50; (100 pcs. box) (for connections to plastered surfaces)	pcs	-					
Knauf Ceiling Steel Dowel, (100 pcs. box)	pcs	2.2	0.9	0.9	0.9	0.9	0.7
<i>insulation (see also Fire Protection pages 4+5)</i> mm thick	m ²	as req.	as req.	as req.	as req.	1	as req.
Cladding							
alt. Knauf Fire-Resistant Board GKF; 12.5 mm							
alt. Knauf Fire-Resistant Board GKFI (impregn.); 12.5 mm			2	-	2	-	2
alt. Knauf Solid Board GKF; 20 mm							
alt. Knauf Solid Board GKFI (imprä.); 20 mm	m ²	-	-	-	-	2	-
alt. Knauf Solid Board GKF; 25 mm							
alt. Knauf Solid Board GKFI (impregn.); 25 mm		2	-	2	-	-	-
Knauf Drywall Screws; (fixing of cladding)							
TN 3.5 x 25 mm		-	8	-	6	-	11
TN 3.5 x 35 mm	pcs	4	15	8	14	10	22
TN 3.5 x 55 mm		-	-	-	-	16	-
TN 4.5 x 70 mm		7	-	14	-	-	-
Jointing							
alt. Knauf Uniflott; (5 kg/25 kg sack)							
alt. Knauf Uniflott impregnated; (5 kg sack)		0.7	0.4	0.7	0.4	0.6	0.4
or Knauf Jointfiller Super; (20 kg sack) (for machine filling with Ames machine)	kg	-	0.5	-	0.5	-	0.5
or Knauf Fugenfüller Leicht; (5 kg/10 kg/25 kg sack)		-	0.4	-	0.4	-	0.4
Knauf Joint Tape; (23 m/75 m/150 m roll)	m	as req.	as req.	as req.	as req.	as req.	as req.
Trenn-Fix 65, self-adhesive; (50 m roll)	m	as req.	as req.	as req.	as req.	as req.	as req.
Edge Trim 23/15; (length 2.75 m)	m						
Corner Trim 31/31; (length 2.6 m/3 m)	m	as req.	as req.	as req.	as req.	as req.	as req.
Alux Edge Trim, width 52 mm; (30 m coil)	m						

Specifications

Item	Description	No. of units	Unit price	Total price
	Lining			
.....	Wall furring, indoors, height in m anchored on reinforced concrete/ masonry/ timber/ light weight concrete *, sound insulation according to DIN 4109 R _{wR} in dB, * thermal transmission coefficient according to DIN 4108-2, U value in W/ (m ² K), * in connection with existing wall, weight per unit area in kg/ m ², * single/ double * layer cladding with Knauf boards GKB / Knauf boards GKBI impregnated/ LaVita Shielding Boards*, DIN 18180, 12.5 mm thick, laminated with aluminium foil *, Product/ System: Knauf Furring with Resilient Channels W622/ Knauf Furring with CD 60/27, direct anchoring W623 *	..... m ² € €
	Furring/ installation shaft wall, with 12.5 mm gypsum board cladding, without fire protection			
.....	Independent furring/ installation shaft wall * DIN 4103-1, installation zone 1/ 2 *, height in m, thickness 75/ 87.5/ 100/ 112.5/ 125 mm *, sound reduction index according to DIN 4109 R _{wR} in dB, * thermal transmission coefficient according to DIN 4108-2, U value in W/(m ² K), * in connection with existing wall, weight per unit area in kg/ m ², * perimeter fixed, anchored on, * single/ double * layer cladding with Knauf Boards GKB / Knauf Boards GKBI impregnated/ LaVita Shielding Boards *, DIN 18180, 12.5 mm thick, laminated with aluminium foil *, Product/ System: Knauf Furring W625/ W626 *	..... m ² € €
	Furring/ installation shaft wall, with Panel / Solid * Boards, without fire protection			
.....	Independent furring/ installation shaft wall * DIN 4103-1, installation zone 1/ 2 *, height in m, thickness 95/ 100/ 120/ 125 mm *, thermal transmission coefficient according to DIN 4108-2, U value in W/(m ² K), * in connection with existing wall, weight per unit area in kg/ m ², * perimeter fixed, anchored on, * single layer cladding with Knauf Panel Boards GKF 20 mm/ GKFI impregnated 20 mm/ Knauf Solid Boards GKF/ GKFI impregnated *, 20/ 25 *mm thick, DIN 18180. Product/ System: Knauf Furring W653	..... m ² € €
	Connection			
.....	Connection, reduced, sliding up to 20 mm, as upgrade to lining/ furring *, to ceiling/ to wall *.	..... m € €
	Movement joint as upgrade to independent furring, width in mm, installation according to drawing no. ....	..... m € €
	Outside corner , as upgrade to lining/ independent furring/ installation shaft wall * installation with corner trim 31/31. Product/ System: Knauf Corner Trim 31/31	..... m € €
	Opening as upgrade to independent furring/ installation shaft wall * dimensions in mm, installation according to drawing no. ....	..... m € €
	Wall opening for power sockets, as upgrade to Knauf Fire Wall, rectangular, dimensions in mm .....	..... pcs € €
	Access panel without fire protection			
.....	Access panel, frame made of aluminium, panel filling made of Knauf Boards, thickness of cladding 12.5/ 20/ 25 * mm, dimensions in mm, with extension-rod safety latch for independent furring/ installation shaft wall *. Product/System: Knauf Access Panel W250	..... pcs € €
	* Cancel not applicable items		Sub-total €

Specifications

Item	Description	No. of units	Unit price	Total price
	Installation Shaft Wall, without metal stud frame, incl. fire protection			
.....	Installation Shaft Wall according to DIN 4103-1, installation zone 2, height in m, thickness in mm 50, sound insulation according to DIN 4109 $R_{w,R}$ in dB, * fire resistance class according to DIN 4102-2, F90, perimeter fixed, anchored on reinforced concrete/ masonry/ timber/ light weight concrete *, with corner angle at perimeters 50 x 35 x 0,7 mm/ CW 50 studs/ UW 50 runners *, and 2 x 25 mm Knauf Solid Boards GKF cladding, DIN 18180. Product/ System: Knauf Installation Shaft Wall W628 type A	..... m ² € €
	Installation Shaft Wall/ Independent Furring, metal stud framework, with fire protection			
.....	Installation shaft wall / independent furring * according to DIN 4103-1, installation zone 1/ 2 *, height in m, thickness in mm, sound insulation according to DIN 4109 $R_{w,R}$ in dB, * fire resistance class according to DIN 4102-2, F30/ 90 *, perimeter fixed, anchored on reinforced concrete/ masonry/ timber/ light weight concrete *, with metal stud frame UW runners + CW studs 75/ 100 * and 2 x 12.5 mm Knauf Boards GKF (F30)/ 2 x 25 mm Knauf Solid Boards GKF (F90) * cladding, DIN 18180, Product/ System: Knauf Installation Shaft Wall W628 type B	..... m ² € €
	Installation Shaft Wall/ Independent Furring, double metal stud framework, incl. fire protection			
.....	Installation shaft wall / independent furring * according to DIN 4103-1, installation zone 1/ 2 *, height in m, thickness in mm, sound insulation according to DIN 4109 $R_{w,R}$ in dB, * fire resistance class according to DIN 4102-2, F30/ 60/ 90 *, perimeter fixed, anchored on reinforced concrete/ masonry/ timber/ light weight concrete *, with screwed double metal stud frame made of UW runners + CW studs 50/75/100 * and 2x12.5 mm Knauf boards GKF (F30)/ Knauf Solid Boards GKF 20 mm + Knauf Boards GKF 12.5 mm (F60)/ Knauf Solid Boards GKF 25 mm + Knauf Boards GKF 18 mm (F60)/ Knauf Solid Boards GKF 2x20 mm (F90)/ 2x25 mm (F90) * cladding, DIN 18180, mineral wool insulation according to DIN EN 13162, building material class A, thickness in mm 40/ 60 *, density in kg/m ³ 40/ 30 *, melting point ≥ 1000°C according to DIN 4102-17. * Product/ System: Knauf Installation Shaft Wall W629	..... m ² € €
	Installation Shaft Wall, with metall crossbars, incl. fire protection			
.....	Installation shaft wall according to DIN 4103-1, installation zone 2, height in m, thickness in mm, sound insulation according to DIN 4109 $R_{w,R}$ in dB, * fire resistance class according to DIN 4102-2, F30/ 60/ 90 *, perimeter fixed, anchored on reinforced concrete/ masonry/ timber/ light weight concrete *, with metall crossbars CW 50/ CW 75/ CW 100 * and 2x12.5 mm Knauf boards GKF (F30)/ Knauf Solid Boards GKF 25 mm + Knauf Boards GKF 18 mm (F60)/ Knauf Solid Boards GKF 2x25 mm (F90) * cladding, DIN 18180, Product/ System: Knauf Installation Shaft Wall W630	..... m € €
	Opening with frame			
.....	Opening, reinforcing frame, UW runners/ CW studs * channel DIN 18182-1, thickness 0.6 mm, as upgrade to Knauf Independent Furring/ Installation Shaft Wall *, rectangular, dimensions in mm .....,	..... pcs € €
	Installation Shaft Access Panel incl. fire protection			
.....	Access panel, fire resistance requirement F30/ F60/ F90 *, frame made of aluminium, panel filling made of Knauf Boards GKF, dimensions in mm, with extension-rod safety latch. for independent furring/ installation shaft wall *, thickness of cladding in mm, Product/ System: Knauf Access Panel W258	..... pcs € €
	* Cancel not applicable items			
			Sub-total €

W62 Knauf Furrings / Installation Shaft Walls

Construction and Application, Jointing, Surface Treatment



Construction

Knauf Independent Furrings and Installation Shafts consist of a metal stud frame. A single or double layer cladding of Knauf Boards is screwed to one side of the metal framework. The metal framework is fixed along the entire perimeter (W628 type A only on sides), W623 is additionally fastened to the sub-surface and W622 is fastened solely to the sub-surface.

face. Insulation material for sound and thermal insulation can be installed into the metal frame construction. A high reduction of alternating electrical fields in partitions and from above the roof can be reached with Knauf LaVita Shielding Boards through the dissipation of the fields over a grounding connection. See TDS K736 for further information.

Settlement joints have to be transferred into the construction of the furrings and installation shafts. For continuous walls, use control joints at approx. 15 m. With double layer cladding and spacing of studs ≤ 62.5 cm ball impact safety is given.

Application

Metal stud frame

- Apply Acoustical Sealant (two strings) or Sealing Tape to the rear of the runners for connection of flanking constructional components. For sound protection requirements seal carefully with acoustical sealant according to DIN 4109, supplement 1, chapter 5.2; porous sealant strips like Sealing Tape are usually not suitable in this case.
- Fix perimeter runners (UW runners at floor and ceiling, CW studs at walls) with suitable dowels to flanking components. Spacing of dowels 1 m (W628, type A: 0.5 m) with at least 3 fixing points at walls. Flanking components solid: Ceiling Steel Dowel/ nailable plug for W628 type A/ W630 fixed to walls, or W628 type B and W629 to ceiling and floor. In case of non-solid flanking components: anchors have to be permitted and standardized for the building material being used.

- Install CW studs at a spacing of 62.5 cm (W625/ W626/ W628 type B 2x12.5 mm/ W629) resp. 100 cm (W653/ W628 type B 2x25 mm) into UW runners and align.
- W630: Attach CW studs as crossbars with screws, by crimping or with rivets at a spacing of 31 cm to UW runner on both sides.
- W629: screw two CW studs to each other on web side with metal screws LB 3.5 x 9.5 or with blind metal rivets at a spacing of 0.75 m.
- W622: Install Resilient Channels horizontally at a spacing of 50 cm.
- W623: Install cut-to-length CD channels into UD runners at a spacing of 62.5 cm and align.
- W625: for ceramic tiles: reduce spacing of studs to 42 cm.

Insulation

Depending on sound and fire protection requirements, install insulation between furring and exterior wall or wall to unheated rooms.

Mineral wool can become necessary for fire protection requirements for some types of W629.

Cladding

- Cladding with vertically applied Knauf Boards for W622/ W623/ W625/ W626 and W629 (12.5/ 18 mm), with horizontally applied Knauf Boards for W653/ W628/ W629 (20/ 25 mm).
- Stagger cut edge joints at least 400 mm. Stagger longitudinal joints when applying 2nd layer.

Fixing of Knauf Boards with Drywall Screws TN

System	Thickness of boards (mm)	1st layer (mm)	Spacing (mm)	2nd layer	Spacing (mm)
W622/ W623/ W625	12,5	TN 3,5 x 25 mm	250		
W622/ W623/ W626/ W628 Typ B/ W629/ W630	12,5 + 12,5	TN 3,5 x 25 mm	750	TN 3,5 x 35 mm	250
W653	25	TN 3,5 x 35 mm	200		
W629	20 + 12,5	TN 3,5 x 35 mm	600	TN 3,5 x 45 mm	250
W629/ W630	20 + 20/ 25 + 18	TN 3,5 x 35 mm	600	TN 3,5 x 55 mm	200/ 250
W628 Typ A/ W628 Typ B/ W629/ W630	25 + 25	TN 3,5 x 35 mm	600	TN 4,5 x 70 mm	200

Jointing

Fill in joints with Knauf Uniflott without using tape. If using tape, hand fill in with Knauf Fugenfüller Leicht or with Ames machine and Knauf Jointfiller-Super. Fill Knauf Solid Boards with Knauf Uniflott. **Recommendation:** Fill in and tape cut edges of visible layers no matter which filling material is used.

Cover all screw heads as well. For double layer cladding, fill in joints of first layer, smooth joints of second layer. Filling and covering of joints should only take place after the boards have been allowed to rest in the given humidity and temperature zones, and no more longitudinal changes can be expected, i.e. expansion or contraction. Joints should be filled at a minimum temperature of 10°C. In case of mastic asphalt screed, fill in joints after screed has been applied.

Surface Treatment

Use a primer on Knauf Boards before coating or painting them. Ensure that the primer and the coat or paint are compatible.

After wallpapering of paper or fiber glass wallpapers and the application of resin / cellulose plasters ensure quick drying through adequate ventilation. The following coats can be used to cover Knauf Boards:

- Plasters: Knauf structured plasters, e.g. resin plasters, thin plasters, entire area smoothing like e.g. Knauf Board-Finish, mineral plasters in connection with paper taped jointing.
- Ceramic tiles
- Wall Papers: paper-, textile and synthetic wall papers. Use only adhesives made of cellulose according to „Merkblatt Nr. 16, Technische Richtlinien für Tapezier- und Klebearbeiten“, Frankfurt/Main 2002, released by Bundesausschuss Farbe und Sachwertschutz.

■ Coats: Washable and abrasion-proof emulsion paint, multicolored (rainbow) emulsion, oil paint, matte-finish lacquer, alkyd resin paint, polymer resin paint, PUR lacquer, or epoxybased lacquer, according to intended use or as required.

■ Alkaline coats such as lime, water glass colors and silicate-based paints are **unsuitable** for gypsum board surfaces. Silicate-based emulsion paints may be used after referring to the manufacturer's recommendations and following the stipulated guidelines closely.

Gypsum board surfaces that have constantly been exposed to light without any protection can develop yellowing agents that show up despite a coat of paint. Therefore, a trial coat is recommended that will extend across several boards including all joints. Yellowing can, however, be successfully avoided only by using a special shielding primer.

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