

Technical Bulletin

KNAUF NEW FIRE-RATED PLASTERBOARD PRODUCTS

The purpose of this Technical Bulletin is to assist Knauf customers to understand the technical requirements of specifying and installing the below new fire-rated products in various Systems.

Testing of our fire-rated products and other Systems continues and we will provide further information on technical requirements at the earliest opportunity.

Customers are advised to continue to specify and/or order fire rated products for your projects as per normal. Knauf will substitute new fire-rated products according to product availability.

Systems

- | | |
|------------------------------|----------------------------------|
| ■ Steel Stud Wall | ■ Floor/Ceiling,
Roof/Ceiling |
| ■ Shaftwall® | ■ Fire Tunnel |
| ■ Ventshaft™ | ■ Spanning Ceiling |
| ■ IntRwall® | ■ Horizontal Shaftwall |
| ■ Partiwall® | ■ FireClad® |
| ■ Timber Stud Wall | ■ Brick Veneer - Timber |
| ■ OutRwall® - Timber | ■ Brick Veneer - Steel |
| ■ OutRwall® - Steel | |
| ■ Column and Beam Protection | |

Product Range

Standard Stocked

- 13mm MultiStop™ 3
- 13mm MultiStop™ 4
- 13mm MultiStop™ 4HI
- 16mm MultiStop™ 3
- 16mm MultiStop™ 4
- 25mm Shaftliner™ Mouldstop

Special Order*

- 13mm MultiStop™ 5
- 13mm MultiStop™ 5HI
- 16mm MultiStop™ 5

* Lead time and minimum quantities apply

Steel Stud Wall and Shaft /Duct Riser Wall Systems

- The above fire-rated products have been certified by BRANZ to achieve the Fire Resistance Level (FRL) as indicated in Table 2-11. Refer to this document for FRL specifications only.
- Table 2-11 are applicable to variants of 13mm and 16mm MultiStop™ products as listed above. All MultiStop plasterboard products of the same thickness achieve the same Fire Resistance Level (FRL) and interchangeable from a fire-rating performance perspective.
- For acoustic performance of wall Systems, refer to Systems+ for Systems lined with Firestop®/ MultiStop products.
- The installation details of steel-stud wall Systems with the new fire-rated products have NOT changed. Refer to Knauf Systems+ and technical manuals for installation details.
- Existing Knauf fire-rated product (e.g. Firestop) may be used in conjunction with the new fire-rated products. However, refer to Table 2-11 for systems requirements and Fire Resistance Level.
- **13mm and 16mm MultiStop 3 are NOT to be used in wet area applications.** Refer Table 1 for product performance attributes or contact Knauf for further information.

Product	Performance Attributes				
	Fire Resistant ¹	Water Resistant	Impact Resistant	Mould Resistant	Acoustic ²
13mm MultiStop 3 16mm MultiStop 3	Yes	No	Moderate	No	Yes
13mm MultiStop 4 16mm MultiStop 4	Yes	Yes	Moderate	No	Yes
13mm MultiStop 5 16mm MultiStop 5	Yes	Yes	Moderate	Yes	Yes
13mm MultiStop 4HI	Yes	Yes	High	No	Yes
13mm MultiStop 5HI	Yes	Yes	High	Yes	Yes
25mm Shaftliner Mouldstop	Yes	Yes	N/A	Yes	Yes

Table 1: Performance attributes

Note:

1) Refer to Table 2, 3, 4 and 5 for wall and ceiling Systems FRL

2) Refer Systems+ for acoustic performance

Steel Stud Wall Systems	Plasterboard Configuration		FRL		Cavity Insulation
	Side 1	Side 2	Non Load Bearing	Load Bearing	
Single Steel Studs (SB) Twin Steel Studs (ST) Staggered Studs (SS) Quiet Stud (SQ)	1x13mm MultiStop	1x13mm MultiStop	-/30/30	30/30/30	-
	1x13mm MultiStop	1x13mm MultiStop	-/60/60*	30/30/30	1x50G11* (minimum)
	2x13mm MultiStop	2x13mm MultiStop	-/120/120	90/90/90	-
	1x13mm MultiStop	2x13mm MultiStop	-/90/90*	30/30/30	1x50G11* (minimum)
	1x16mm MultiStop	1x16mm MultiStop	-/60/60	60/60/60	-
	1x16mm MultiStop	1x16mm MultiStop	-/90/90*	60/60/60	1x50G11* (minimum)
	2x16mm MultiStop	2x16mm MultiStop	-/120/120	120/120/120	-
Single Steel Studs (SO) (FRL from lined side only)	2x16mm MultiStop	-	-/60/60	60/60/60	-
	3x16mm MultiStop	-	-/120/120	120/120/120	-
	3x16mm MultiStop	-	-/120/120	120/120/120	-

Table 2: 13mm and 16mm MultiStop Steel studs Systems and Fire Resistance Level

Note:

1) FRL from both directions unless noted otherwise.

*2) Must include glasswool insulation as indicated

Steel Stud Wall and Shaft /Duct Riser Wall Systems

Timber Stud Wall Systems	Plasterboard Configuration		FRL		Cavity Insulation
	Side 1	Side 2	Non Load Bearing	Load Bearing	
Single Studs (TB) Twin Studs (TT) Staggered Studs (TS) Single Stud (TF) with furring channel	1x13mm MultiStop	1x13mm MultiStop	-/60/60*	30/30/30	1x50G11* (minimum)
	1x13mm MultiStop	2x13mm MultiStop	-/60/60	30/30/30	-
	1x16mm MultiStop	1x16mm MultiStop	-/60/60	60/60/60	-
	2x13mm MultiStop	2x13mm MultiStop	-/90/90	30/30/30	-
	2x16mm MultiStop	2x16mm MultiStop	-/120/120	120/120/120	-
Single Studs (TO) (FRL from lined side only)	1x16mm MultiStop	-	-/30/30	-	-
	2x16mm MultiStop	-	-/60/60	60/60/60	-
	3x13mm MultiStop	-	-/90/90	90/90/90	-
	3x16mm MultiStop	-	-/120/120	120/120/120	-

Table 3: Timber Stud Wall Systems and Fire Resistance Level

Note:

1) FRL from both directions unless noted otherwise.

*2) Must include glasswool insulation as indicated

3) Additional layers of villaboard or non-technical plasterboard to the systems in table 3 will not affect FRL

4) Timber studs to be 70mm min in Depth and designed by suitably qualified Structural Engineer

OutRwall Timber Stud Wall Systems	Plasterboard Configuration		FRL		Cavity Insulation
	Internal Lining	External Lining	Non Load Bearing	Load Bearing	
Single Timber Studs (OWT) Lightweight cladding on battens over building wrap	1x13mm MultiStop	1x13mm MultiStop 4	-	30/30/30	-
	1x10mm SHEETROCK	1x16mm MultiStop	-	60/60/60 from outside	-
	1x16mm MultiStop	1x16mm MultiStop 4	-	60/60/60	-
	1x10mm SHEETROCK	2x16mm MultiStop 4	-	90/90/90 from outside	-
	1x16mm MultiStop	2x16mm MultiStop 4	-	90/90/90 from outside 60/60/60 from inside	-
	2x13mm MultiStop	2x13mm MultiStop 4	-	90/90/90	-

Table 4 : OutRwall Timber Stud Wall Systems and Fire Resistance Level

Note:

1) FRL from both directions unless noted otherwise.

2) All MultiStop variants may be used for internal lining dependent on project design, refer table 1 for information.

3) Timber studs to be 70mm min in depth and designed by suitably qualified Structural Engineer

Steel Stud Wall and Shaft /Duct Riser Wall Systems

OutRwall Steel Stud Wall Systems	Plasterboard configuration		FRL		Cavity Insulation
	Internal Lining	External Lining	Non Load Bearing	Load Bearing	
Single Steel Studs (OWS) Lightweight cladding on battens over building wrap	1x10mm SHEETROCK	1x13mm MultiStop 4	-/30/30 from outside	30/30/30 from outside	-
	1x13mm MultiStop 4	1x13mm MultiStop 4	-/60/60*	30/30/30	1x50G11* (minimum)
	1x10mm SHEETROCK	1x16mm MultiStop 4	-/60/60* from outside (must use James Hardie external cladding)	60/60/60 from outside (must use James Hardie external cladding)	-
	1x10mm SHEETROCK	2x13mm MultiStop 4	-/90/90 from outside	90/90/90 from outside	-
	1x16mm MultiStop	1x16mm MultiStop 4	-/90/90*	60/60/60 ACR 10%	1x75G11* (minimum)
	2x13mm MultiStop	2x13mm MultiStop 4	-/120/120	90/90/90	-
	2x16mm MultiStop	2x16mm MultiStop 4	-/120/120	120/120/120 ACR 15%	-

Table 5 : OutRwall Steel Stud Wall Systems and Fire Resistance Level

Note:

- 1) FRL from both directions unless noted otherwise.
- *2) Must include glasswool insulation as indicated
- 3) Where required James Hardie external cladding must be used to achieve FRL
- 4) All MultiStop variants may be used for internal lining dependent on project design, refer table 1 for information.
- 5) Steel studs to be 92x0.50mm min and designed by suitably qualified Structural Engineer and where appropriate apply ACR as indicated in table.

FireClad Wall Systems	Wall configuration		FRL	
	Internal side	External side	From inside	From outside
Steel cladding on battens over building wrap with 2 or more fire-rated plasterboard (FC)	-	2x16mm MultiStop	-	60/60/60
	-	3x13mm MultiStop	-	90/90/90
	-	3x16mm MultiStop	-	120/120/120

Table 6: FireClad wall Systems and Fire Resistance Level

Brick Veneer with Timber Stud Wall Systems	Wall configuration		FRL	
	Internal side	External side	From inside	From outside
110 clay brick- 170 kg/m ² , 50mm air gap, single Timber Stud (BVT)	1x13mm MultiStop	Brick Veneer with 30/30/30 FRL	30/30/30	30/30/30
	1x16mm MultiStop	Brick Veneer with 60/60/60 FRL	60/60/60	60/60/60
	2x13mm MultiStop	Brick Veneer with 90/90/90 FRL	90/90/90	90/90/90

Table 7: Brick Veneer Timber Stud Wall Systems and Fire Resistance Level

Note:

- 1) All MultiStop variants may be used for internal lining dependent on project design, refer table 1 for information.
- 2) Timber studs to be 70mm min in depth and designed by suitably qualified Structural Engineer

Steel Stud Wall and Shaft /Duct Riser Wall Systems

Brick Veneer with Steel Stud Wall Systems	Wall configuration		FRL	
	Internal side	External side	From inside	From outside
110 clay brick- 170 kg/m ² , 50mm air gap, single Steel Stud (BVS)	1x13mm MultiStop	Brick Veneer with 60/60/60 FRL	-/60/60	60/60/60
	1x16mm MultiStop	Brick Veneer with 90/90/90 FRL	-/90/90 or 60/60/60	90/90/90
	2x13mm MultiStop	Brick Veneer with 90/90/90 FRL	90/90/90 or -/120/120	90/90/90
	2x16mm MultiStop	Brick Veneer with 120/120/120 FRL	120/120/120	120/120/120

Table 8: Brick Veneer Steel Stud Wall Systems and Fire Resistance Level

Note:

- 1) All MultiStop variants may be used for internal lining dependent on project design, refer table 1 for information.
- 2) Timber studs to be 70mm min in depth and designed by suitably qualified Structural Engineer

Column/Beam Protection Systems	System configuration		FRL
	Plasterboard Lining	Framing	Load Bearing
Steel Column - I sections (PSC.1) (encasement channel forming gap around column)	1x13mm MultiStop	Refer Rondo	30/-/-
	2x13mm MultiStop	Refer Rondo	60/-/-
	2x16mm MultiStop	Refer Rondo	90/-/-
	3x13mm MultiStop	Refer Rondo	120/-/-
Steel Column - SHS/ RHS sections (PSC.2) (Rondo PN 142 track forming 18mm min. gap around column)	1x13mm MultiStop	Furring channel to concrete column	30/-/-
	2x13mm MultiStop	Furring channel to concrete column	60/-/-
	2x16mm MultiStop	Furring channel to concrete column	90/-/-
	1x25mm Shaftliner Mouldstop	Furring channel to concrete column	120/-/-
Steel Column - CHS sections (PSC.3) (Rondo 0.75mm BMT track forming gap around column)	1x13mm MultiStop	Direct fix or furred	30/-/-
	2x13mm MultiStop	Direct fix or furred	60/-/-
	3x13mm MultiStop	Direct fix or furred	90/-/-
	3x16mm MultiStop	Direct fix or furred	120/-/-
Concrete Column (PCC.1)	1x13mm MultiStop	Spaced from sides and bottom of steel beam	30/-/-
	2x13mm MultiStop	Spaced from sides and bottom of steel beam	60/-/-
	2x16mm MultiStop	Spaced from sides and bottom of steel beam	90/-/-
	3x13mm MultiStop	Spaced from sides and bottom of steel beam	120/-/-
	2x16mm MultiStop	PFC steel beam within wall clad both sides	120/-/-
	furring + 2x16mm MultiStop +furring+1x16mm MultiStop	Spaced from sides and bottom of steel beam supporting concrete floor	120/-/-
	Ceiling bulkhead or furring + 2x16mm MultiStop+furring+1x16mm MultiStop	Spaced from sides and bottom of steel beam supporting timber floor	120/-/-
Timber Column (PTC.1)	1x13mm MultiStop	Direct fix or furred	30/-/-
	2x13mm MultiStop	Direct fix or furred	60/-/-
Timber Beam (PTB.1)	3x13mm MultiStop	Direct fix or furred	90/-/-
	3x16mm MultiStop	Direct fix or furred	120/-/-
Steel Beam (PSB.1)	1x13mm MultiStop	Spaced from sides and bottom of steel beam	30/-/-
	2x13mm MultiStop	Spaced from sides and bottom of steel beam	60/-/-
	2x16mm MultiStop	Spaced from sides and bottom of steel beam	90/-/-
	3x13mm MultiStop	Spaced from sides and bottom of steel beam	120/-/-
	2x16mm MultiStop	PFC steel beam within wall clad both sides	120/-/-
	furring + 2x16mm MultiStop +furring+1x16mm MultiStop	Spaced from sides and bottom of steel beam supporting concrete floor	120/-/-
	Ceiling bulkhead or furring + 2x16mm MultiStop+furring+1x16mm MultiStop	Spaced from sides and bottom of steel beam supporting timber floor	120/-/-

Table 9: Column/Beam Protection Wall Systems and Fire Resistance Level

Note:

- 1) All MultiStop variants may be used for internal lining dependent on project design, refer table 1 for information.
- 2) Structural columns/beams designed by others.

Steel Stud Wall and Shaft /Duct Riser Wall Systems

Column/Beam within fire-rated Wall Systems	Plasterboard Configuration		FRL
	Side 1	Side 2	Load Bearing
Steel/Timber Column and Beam (PSC.4)	1x13mm MultiStop	1x13mm MultiStop	30/-/-
	1x16mm MultiStop	1x16mm MultiStop	60/-/-
	2x13mm MultiStop	2x13mm MultiStop	90/-/-
	2x16mm MultiStop	2x16mm MultiStop	120/-/-

Table 10: Column/Beam within fire-rated Wall Systems and Fire Resistance Level

Note:

- 1) All MultiStop variants may be used for internal lining dependent on project design, refer table 1 for information.
2) Timber and steel columns design by others.

Shaft/Duct Riser Wall Systems	Plasterboard Configuration		FRL		Cavity Insulation
	Side 1	Side 2	Non Load Bearing	Load Bearing	
Ventshaft (VS)	3x13mm MultiStop	-	-/90/90	-	-
	3x16mm MultiStop	-	-/120/120	-	-
Shaftwall (SH)	1x25mm Shaftliner Mouldstop	1x16mm MultiStop	-/60/60	-	-
	1x25mm Shaftliner Mouldstop	2x13mm MultiStop	-/90/90	-	-
	1x25mm Shaftliner Mouldstop	2x16mm MultiStop	-/120/120	-	-
	1x25mm Shaftliner Mouldstop	1x13mm MultiStop + 1x16mm MultiStop	-/120/120	-	-

Table 11: Shaft/Duct Riser Wall Systems and Fire Resistance Level

Note:

- 1) FRL from both directions unless noted otherwise.

Ceiling Systems and Fire Tunnel Systems

- The above fire-rated products have been certified by BRANZ to achieve the Fire Resistance Level (FRL) and/or Resistance to Insipient Spread of Fire (RISF) as indicated in Table 12 and 13. Refer to this document for FRL and RISF specifications only.
- Table 12 and 13 are applicable to variants of 13mm, 16mm MultiStop™ and 25mm Shaftliner™ Mouldstop products as listed above. All MultiStop plasterboard products of the same thickness achieve the same Fire Resistance Level (FRL and/or RISF) and interchangeable from a fire-rating performance perspective
- **Ensure steel framing manufacturer (Rondo) is consulted in the design of ceiling framing system to support new fire-rated products as listed above.**
- For acoustic performance of Ceiling Systems, refer to Systems+ section G Systems lined with Firestop/ Shaftliner products.
- The installation details of Ceiling Systems with the new fire-rated products have NOT changed. Refer to Knauf Systems+ and technical manuals for installation details.
- Existing Knauf fire-rated product (e.g. Firestop®) may be used in conjunction with the new fire-rated products. However, refer to Table 12 and 13 below for Systems requirements and Fire Resistance Level.

Ceiling Systems and Fire Tunnel Systems

Ceiling Systems	Plasterboard Configuration		FRL	RISF	FRL Direction	Cavity Insulation
	Top Lining	Below Lining				
Ceiling under Roof (CR) (direct fix or furring channel system) Ceiling under Floor (CT), (CC) steel or concrete floor (Direct fix or furring channel system)	-	1x13mm MultiStop	30/30/30	-	From below	-
	-	1x16mm MultiStop	30/30/30	-	From below	-
	-	2x13mm MultiStop	60/60/60	30 mins	From below	-
	-	1x13mm MultiStop + 1x16mm MultiStop	60/60/60	60 mins	From below	-
	-	2x16mm MultiStop	90/90/90	60 mins	From below	-
	-	3x16mm MultiStop	120/120/120	90 mins	From below	-
	-	2x16mm MultiStop + Furring + 2x16mm MultiStop	120/120/120	120 mins	From below	-
Spanning Ceiling (CS) (150 CS studs)	1x16mm MultiStop	1x16mm MultiStop	60/60/60	-	From above	-
	2x13mm MultiStop	1x13mm MultiStop	90/90/90	-	From above	-
	2x13mm MultiStop	3x13mm MultiStop	90/90/90	-	Both sides	-
	2x16mm MultiStop	2x16mm MultiStop	120/120/120 (from above) 60/60/60 (from below)	-	Refer FRL	-
	2x16mm MultiStop	1x16mm MultiStop+10mm Plasterboard	120/120/120	-	From above	-
	2x16mm MultiStop	3x16mm MultiStop	120/120/120	-	Both sides	-
Horizontal Shaftwall (CH) (CH Studs)	1x25mm Shaftliner Mouldstop	2x16mm MultiStop	60/60/60	-	Both sides	-
	1x25mm Shaftliner Mouldstop	3x16mm MultiStop	120/120/120	-	Both sides	-
	3x16mm MultiStop	1x25mm Shaftliner Mouldstop	120/120/120	-	Both sides	-

Table 12: Ceiling Systems and Fire Resistance Level

Ceiling Systems and Fire Tunnel Systems

Fire Tunnel Systems	Plasterboard Configuration				Framing	FRL Direction	Cavity Insulation
	Ceiling		Wall				
	Top Lining	Below Lining	Internal side	External Side			
Fire Tunnel (FT)	1x16mm MultiStop	1x16mm MultiStop	1x16mm MultiStop	1x16mm MultiStop	Welded Rondo Steel frames	-/60/60 from outside	
	2x16mm MultiStop	2x16mm MultiStop	1x16mm MultiStop	1x16mm MultiStop	Welded Rondo Steel frames	-/60/60 from both sides	
	2x13mm MultiStop	1x13mm MultiStop	1x13mm MultiStop	2x13mm MultiStop	Welded Rondo Steel frames	-/90/90 from outside	
	2x16mm MultiStop	1x16mm MultiStop +10mm Plasterboard	1x16mm MultiStop +10mm Plasterboard	2x16mm MultiStop	Welded Rondo Steel frames	-/120/120 from outside	
	2x16mm MultiStop	3x16mm MultiStop	2x16mm MultiStop	2x16mm MultiStop	Welded Rondo Steel frames	-/120/120 from both sides	
	2x25mm Shaftliner Mouldstop	1x16mm MultiStop	2x16mm MultiStop	2x16mm MultiStop	Structural framing support	-/180/180* from outside	1x50G11* (minimum)

Table 13: Fire Tunnel Systems and Fire Resistance Level

Note:

1) Must include glasswool as indicated

2) Welded Rondo steel frames to be ex 150mm studs, tracks and angles

Note

- Stated glasswool insulation forms part of the Fire Resistance Level (FRL). 50G11 – Denotes 50mm Glasswool 11.0kg/m³.
- Stated steel studs are manufactured by Rondo and forms part of fire-rating system, should other steel suppliers be used in Knauf Systems, it is the responsibility of the supplier to provide relevant certification to meet requirements of the NCC.
- Refer to Knauf Systems+ and technical manual for Systems details and relevant information.

Partiwall®

- Only Partiwall® Systems with FRL 60/60/60 requirement can use the above fire-rated products.
- New and existing fire-rated plasterboard products may be used together without affecting the Fire Resistance Level.
- The installation details of Partiwall with the new fire-rated products have NOT changed. Refer to Knauf Partiwall manual for installation details.
- Do not mix and match Knauf products and other manufacturer's products. Systems are required to be installed as complete Systems with plasterboard products manufactured by the same manufacturer of choice.
- Use 16mm MultiStop™ 3 (in lieu of 16mm Firestop®) and screw laminate to the 25mm Shaftliner™ Mouldstop in accordance with the Partiwall manual.

IntRwall®

- Only IntRwall® Systems IW60.3, IW60.4, IW60.5 and with FRL -/60/60 requirement can use the above products. Refer to Systems+ for systems information.
- New and existing fire-rated plasterboard products may be used together without affecting the Fire Resistance Level.
- Glasswool insulation in wall cavity as required by Systems performance. **Polyester insulation is not permitted.**
- Refer to Knauf technical literature and Handbook for installation details.
- Where internal linings of wall system do not extend full height of wall and terminate at the ceiling level, use 16mm MultiStop™ 3 (in lieu of 16mm Firestop®) and screw laminate to the 25mm Shaftliner™ Mouldstop above the ceiling line as required in accordance with the IntRwall installation details.
- Do not mix and match Knauf products and other manufacturer's products. Systems are required to be installed as complete systems with plasterboard products manufactured by the same manufacturer of choice.

Compliance

- 13mm MultiStop, 16mm MultiStop and 25mm Shaftliner Mouldstop have been approved by BRANZ (Fire Testing Authority) to be used in fire-rated wall Systems, ceiling systems, specialty systems as indicated in Table 2-13, Partiwall and IntRwall systems.
- Install products as per our technical manuals to ensure the systems are in accordance with systems certification.
- Do not mix and match Knauf products and other manufacturer's products. Systems are required to be installed as complete systems with plasterboard products manufactured by the same manufacturer of choice.
- Fire reports available on request and can be sent directly to Building Surveyors and certifiers.

Technical Support

Contact Knauf TecASSIST for technical support and enquiries relating to Knauf's new fire-rated product and installation of Wall and Ceiling Systems, specialty Systems, Partiwall, and IntRwall.

Phone: **1800 811 221**

Email: **TecASSIST@knauf.com**