GUIDELINES ENGINEERING No. 14 rev 5

GUIDE-LINE TO APPLICATION OF MiTek® TOP-HAT PROFILES

20mm Top-Hat (for Ceilings ONLY)

Product Code : USCEIL

25mm Top-Hat

Product Code : USBAT25

40mm Top-Hat

Product Code : USP0.5G

PLEASE NOTE :

- ** All Tek Screws must be compliant with the requirements of SANS 1273 as supplied by MiTek®*
- *Where Multi-Ply Trusses occur all stated connections must be made into each and every Ply*
- *Where Timber Bracing Frames occur Purlins and Battens must be connected to the Bracing Frames - refer to MiTek Bracing Details*
- *For application with Roof Coverings other than those noted please refer to MiTek ®*
- *If in doubt please refer to MiTek Industries South Africa (Pty) Ltd*

** MiTek are not responsible for products' adequacy if installed using non-MiTek connections.*

GUIDE-LINE TO APPLICATION OF MiTek® Top-Hat Profiles - Fixing to Timber

	TOP HAT SIZE / APPLICATION	PRODUCT CODE	Max. Truss Spacing c/c (mm)	Max. Top Hat Spacing c/c (mm)	Fixing to Timber	
					General Fixing	Splice Fixing
20mm Top-Hat	**20mm Ceiling Batten**	USCEIL	1400	400	2 x 35mm Permfix (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 35mm Permfix (1 per Flange) **Between Trusses :** Minimum overlap of 200mm plus 4 x 8x13 Tek Screws (2 per Flange)
25mm Top-Hat	**25mm Tiling Batten** *for use with :* *Concrete Tiles*	USBAT25	1100	330	**≤ 20°** - 1 x 35mm Permfix on Lower Flange only At Eaves, Gable & Apex use 2 x 35mm Permfix (1 per Flange) **> 20°** - 2 x 35mm Permfix (1 per Flange) At Eaves, Gable & Apex use 2 x 35mm Permfix (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 35mm Permfix (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 8x13 Tek Screws (2 per Flange)
	25mm Web & Bottom Chord Runner *(NOT to be used with Bracing Frames)*	USBAT25	1400	refer to Truss Design	2 x 35mm Permfix (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 35mm Permfix (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)
	25mm Web Cross Bracing *(NOT to be used with Bracing Frames)*	USBAT25	800	refer to Truss Design	2 x 35mm Permfix (1 per Flange) at each connection	**Not Applicable**
40mm Top-Hat	**40mm Tilting Batten** *for use with :* *Tiled Roofs using the 25mm Tiling Batten*	USP0.5	1100	N/A	2 x 35mm Permfix (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 35mm Permfix (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)
	40mm Purlin *for use with :* *Sheeted Roofs or Metal Tile Roofs*	USP0.5	1400	1150	2 x 60mm eCo Purlin Nail (1 per Flange) At Eaves, Gable & Apex use 2 x 60mm Permfix ***Additional eCo Strapping required for High Wind Areas - refer MiTek Engineering***	**Onto Truss :** Min. overlap of 160mm plus 2 x 60mm eCo Purlin Nail (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)
	40mm Web Cross Bracing & Top Chord & Bottom Chord Bracing	USP0.5	1400	refer to Truss Design	2 x 35mm Permfix (1 per Flange) at each connection	**Not Applicable**
	40mm Web & Bottom Chord Runner	USP0.5	1400	refer to Truss Design	2 x 35mm Permfix (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 35mm Permfix (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)

GUIDE-LINE TO APPLICATION OF MiTek® Top-Hat Profiles - Fixing to Steel

	TOP HAT SIZE / APPLICATION	PRODUCT CODE	Max. Truss Spacing c/c (mm)	Max. Top Hat Spacing c/c (mm)	Fixing to Steel (Ultra-Span)	
					General Fixing	Splice Fixing
20mm Top-Hat	**20mm Ceiling Batten**	USCEIL	1400	400	2 x 8x13 Tek Screws (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 8x13 Tek Screws (1 per Flange) **Between Trusses :** Minimum overlap of 200mm plus 4 x 8x13 Tek Screws (2 per Flange)
25mm Top-Hat	**25mm Tiling Batten** *for use with :* *Concrete Tiles*	USBAT25	1100	330	**≤ 20°** - 1 x 8x13 Tek Screw on Lower Flange only At Eaves, Gable & Apex use 2 x 8x13 Tek Screws (1 per Flange) **> 20°** - 2 x 8x13 Tek Screws (1 per Flange) At Eaves, Gable & Apex use 2 x 8x13 Tek Screws (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 8x13 Tek Screws (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 8x13 Tek Screws (2 per Flange)
	25mm Web & Bottom Chord Runner *(NOT to be used with Bracing Frames)*	USBAT25	1400	refer to Truss Design	2 x 12x20 Tek Screws (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 12x20 Tek Screws (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)
40mm Top-Hat	**40mm Tilting Batten** *for use with :* *Tiled Roofs using the 25mm Tiling Batten*	USP0.5	1100	N/A	2 x 12x20 Tek Screws (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 12x20 Tek Screws (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)
	40mm Purlin *for use with :* *Sheeted Roofs or Metal Tile Roofs*	USP0.5	1400	1150	2 x 12x20 Tek Screws (1 per Flange) At Eaves, Gable & Apex use 4 x 12x20 Tek Screws (2 per Flange) ***Additional eCo Strapping required for High Wind Areas - refer MiTek Engineering***	**Onto Truss :** Minimum overlap of 100mm plus 2 x 12x20 Tek Screws (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)
	40mm Web Cross Bracing & Top Chord & Bottom Chord Bracing	USP0.5	1400	refer to Truss Design	2 x 12x20 Tek Screws (1 per Flange) at each connection	**Not Applicable**
	40mm Web & Bottom Chord Runner	USP0.5	1400	refer to Truss Design	2 x 12x20 Tek Screws (1 per Flange)	**Onto Truss :** Minimum overlap of 100mm plus 2 x 12x20 Tek Screws (1 per Flange) **Between Trusses :** Minimum overlap of 300mm plus 4 x 12x20 Tek Screws (2 per Flange)