NORTHERN TERRITORY DEEMED TO COMPLY MANUAL - National Construction Code Volume 2 (Section 3.0.4 Structural resistance of materials in high wind areas)
This product has been determined to satisfy NCC Performance Requirement P2.1.1 for structural stability and resistance.

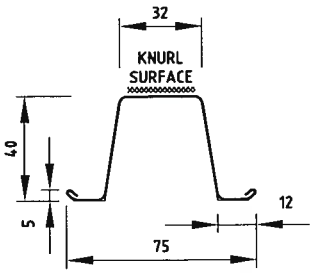
MAXIMUM BATTEN SPACING (mm)

BUILDING HEIGHT	TERRAIN CATEGORY	KI	pz (kPa)	TS4075 BATTEN SPAN (SUPPORT SPACING), mm				
				≤600	900	1200	1500	1800
UP TO 5M	1	1	3.57	1455	1030	675	510	350
		1.5	4.43	1175	830	540	410	280
		2	5.29	980	695	455	345	235
		3	7.01	740	520	340	260	175
	2	1	2.9	1795	1265	830	630	430
		1.5	3.6	1445	1020	665	505	345
		2	4.3	1210	855	560	425	290
		3	5.69	910	645	420	320	215
	2.5	1	2.65	1960	1385	905	690	470
		1.5	3.29	1580	1115	730	555	375
		2	3.93	1320	935	610	465	315
		3	5.2	1000	705	460	350	240
	3	1	2.41	2160	1525	1000	755	515
		1.5	2.99	1740	1230	805	610	415
		2	3.57	1455	1030	675	510	350
		3	4.73	1100	775	505	385	260
	4	1	1.97	2640	1865	1220	925	630
		1.5	2.44	2130	1505	985	750	510
		2	2.92	1780	1260	825	625	425
		3	3.87	1345	950	620	470	320
UP TO 10M	1	1	4.08	1275	900	590	445	305
		1.5	5.07	1025	725	475	360	245
		2	6.05	860	605	395	300	205
		3	8.02	645	455	300	225	115
	2	1	3.5	1485	1050	685	520	335
		1.5	4.34	1195	845	555	420	285
		2	5.19	1000	705	460	350	240
		3	6.87	755	535	350	265	180
	2.5	1	2.96	1755	1240	810	615	420
		1.5	3.68	1410	1000	650	495	335
		2	4.39	1185	835	545	415	280
		3	5.82	890	630	410	310	210
	3	1	2.41	2160	1525	1000	755	515
		1.5	2.99	1740	1230	805	610	415
		2	3.57	1455	1030	675	510	350
		3	4.73	1100	775	505	385	260
	4	1	1.97	2640	1865	1220	925	630
		1.5	2.44	2130	1505	985	750	510
		2	2.92	1780	1260	825	625	425
		3	3.87	1345	950	620	470	320

BATTEN SPACING NOTES:

1. MAXIMUM SPACING COULD BE GOVERNED BY CAPACITY OF BATTENS AND THEIR CONNECTIONS TO SUPPORTING MEMBERS AS WELL AS PULL-OUT CAPACITIES OF FASTENERS CONNECTING LYSAGHT CLADDINGS TO BATTEN.
2. SPACING OF BATTENS SHALL NOT EXCEED MAXIMUM SPACING OF CLADDING AS GIVEN IN THE RELEVANT DTCM WALLING DRAWINGS.
3. FASTENER REQUIREMENTS FOR FIXING BATTEN TO SUPPORTS IN BATTEN SPACING TABLE:
   STEEL SUPPORTS
   - 1.00mm BMT: 2x #14(M6.5)-12X30 CYCLONIC ROOF ZIPS®
   - 1.20~1.9mm BMT: 2x #14-10X25 HEX. HEAD SELF DRILLING SELF TAPPING TEKS®
   - 'BUILDEX' M6.5-12X30 CYCLONIC ROOF ZIPS = #14-12X30 CYCLONIC ROOF ZIPS

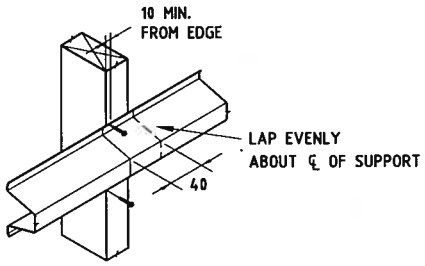
   TIMBER SUPPORTS:
   - ALL TIMBER SUPPORTS: 2x 'BUILDEX' #12(M5.5)-11x40 BATTENZIPS
4. METAL WALLING FASTENER: REFER TO THE RELEVANT DTCM WALLING DRAWINGS FOR FASTENER FIXING REQUIREMENTS.



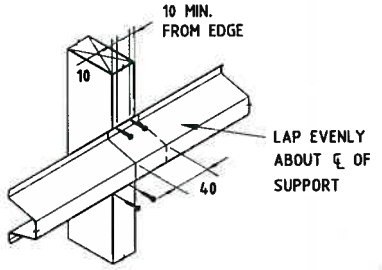
TS4075 PROFILE

DESIGN CAPACITY TABLE NOTES:

1. STEEL SUPPORT FASTENER SPECIFICATION:
   - 1.00mm BMT: #14(M6.5)-12X30 CYCLONIC ROOF ZIPS®
   - 1.20~1.9mm BMT: #14-10X25 HEX. HEAD SELF DRILLING SELF TAPPING TEKS®
   - 'BUILDEX' M6.5-12X30 CYCLONIC ROOF ZIPS = #14-12X30 CYCLONIC ROOF ZIPS
2. TIMBER SUPPORT FASTENER SPECIFICATION: 'BUILDEX' #12(M5.5)-11x40 BATTENZIPS
3. DESIGN CAPACITY TABLE CAN BE USED TO DESIGN TS4075 WITH TIMBER SUPPORTS:
   - 2 FASTENER CONNECTION: SOFTWOOD TIMBER = 1.5mm bmt STEEL SUPPORT, HARDWOOD TIMBER = 1.9mm bmt STEEL SUPPORT.
   - 4 FASTENER CONNECTION: HARDWOOD/SOFTWOOD TIMBER SUPPORT = 1.9bmt STEEL SUPPORT.
4. OUTWARD CAPACITY SHALL BE LIMITED BY THE MINIMUM VALUE BETWEEN MEMBER STRENGTH AND FASTENERS CAPACITY.
5. * BATTEN SHALL BE CONTINUOUS OVER AT LEAST 2 SPANS, LAPPED 40mm MINIMUM AT THE SUPPORT LOCATIONS.



BATTEN TO TIMBER
TYP. 2 SCREW CONNECTION

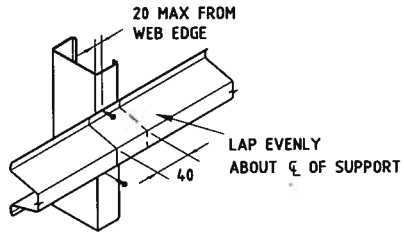


BATTEN TO TIMBER
TYP. 4 SCREW CONNECTION

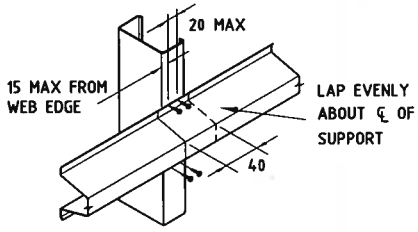
DESIGN CAPACITY TABLE - OUTWARD, CONTINUOUS SPAN*

ULTIMATE LIMIT STATE LOAD (kN/m)

SPAN (mm)	MEMBER STRENGTH kN/m	2 FASTENER CAPACITY (kN/m) SUPPORT THICKNESS (mm/bmt)				4 FASTENER CAPACITY (kN/m) SUPPORT THICKNESS (mm/bmt)			
		#14(M6.5)-12x30	#14-10x25			#14(M6.5)-12x30	#14-10x25		
		1.0mm	1.2mm	1.5mm	1.9mm	1.0mm	1.2mm	1.5mm	1.9mm
≤ 600	7.98	5.51	7.19	8.99	11.93	7.75	10.41	13.09	15.69
900	4.72	3.68	4.79	5.99	7.95	5.16	6.94	8.73	10.46
1200	2.41	2.76	3.59	4.49	5.96	3.87	5.21	6.54	7.84
1500	1.83	2.21	2.88	3.60	4.77	3.10	4.16	5.24	6.27
1800	1.25	1.84	2.40	3.00	3.98	2.58	3.47	4.36	5.23



BATTEN TO STEEL
TYP. 2 SCREW CONNECTION



BATTEN TO STEEL
TYP. 4 SCREW CONNECTION

NOTES COVERING BASIS OF DTCM SHEET (RELEVANT TEST REPORTS ETC)

1. 'FULL SCALE TOPSPAN 4075,6175,6110 BATTENS TESTING TO BUILDING CODES OF AUSTRALIA'S LOW-HIGH-LOW CYCLONIC TEST', REGIME. INDEX No. 5.1.2 - REPORT 04, AUGUST 2010, BLUESCOPE LYSAGHT No. 27 STERLING RD, MINCHINBURY 2770 AUSTRALIA.
2. 'WITHDRAWAL CAPACITIES OF TOPSPAN BATTEN TO TIMBER SUPPORT CONNECTIONS USING BUILDEX BATTENZIPS M5.5 - 11 x 40 FASTENERS', INDEX No. 5.1.2 - REPORT 06, DECEMBER 2010, BLUESCOPE LYSAGHT No. 27 STERLING RD, MINCHINBURY 2770 AUSTRALIA.
3. 'PULLOUT CAPACITIES OF SCREW FASTENED CONNECTIONS THROUGH LYSAGHT TOPSPAN BATTENS TO STEEL PURLINS', INDEX No. 5.4.3 - REPORT 01, NOVEMBER 2010, BLUESCOPE LYSAGHT No. 27 STERLING RD, MINCHINBURY 2770 AUSTRALIA.

Checking Engineer
Name: SANDEEP SHARMA
Registration Number: MIE AUST. 3101165
Date: 18/07/2022
Signature:
Must be an Australian registered structural engineer

Certifying Engineer
Name: STEPHEN HEALEY
NT Registration Number: 34856ES
Date: 10 / 08 / 2022
Signature:
Must be a registered structural engineer in the Northern Territory

Product Name
TOPSPAN 4075 - WALLING BATTEN FOR CYCLONIC REGIONS

Product Description
TOPSPAN 4075 (TS4075) IS MANUFACTURED FROM 0.75mm BMT G550, AM125 TRUECORE STEEL

Manufacturer's Name
LYSAGHT
BlueScope Steel Limited
A.B.N. 16 000 011 058
Trading as Lysaght

Design Criteria

TOPSPAN 40 COMPLIES WITH AUSTRALIAN STANDARDS FOR THE FOLLOWING REQUIREMENTS:

A. WIND LOADING: AS/NZS 1170.2 2021 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTION
   WIND LOAD DESIGN CRITERIA:
   1. IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS
   2. VR = 66 m/sec
   3. Ms = Mt = Md = 1.0, Mc = 1.05
   4. Cpe = +0.7/-0.65, Cpi = +0.65/-0.7 Kce & Kci = 0.9
   5. HEIGHT MULTIPLIERS FROM TABLE 4.1 OF AS/NZS 1170.2:2021 STRUCTURAL DESIGN ACTIONS PART 2:WIND ACTIONS HAVE BEEN USED TO GENERATE THE TABLES.

HEIGHT (m)	TERRAIN / HEIGHT MULTIPLIER (Mz,cat)				
	1	2	2.5	3	4
<=5	1.01	0.91	0.87	0.83	0.75
<=10	1.08	1.00	0.92	0.83	0.75

B. CONCENTRATED LOAD: AS/NZS 1170.1 2002 STRUCTURAL DESIGN ACTIONS PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS (INCORPORATING AMENDMENT 1 & 2)
C. SERVICEABILITY: AS/NZS 1170.0 2002 STRUCTURAL DESIGN ACTIONS PART 0: GENERAL PRINCIPLES (INCORPORATING AMENDMENT 1, 2, 3, 4 & 5)
D. TIMBER STRENGTH GROUPS: AS 1720.2 2006 TIMBER STRUCTURES PART 2: TIMBER PROPERTIES (INCORPORATING AMENDMENT No. 1).
E. PRODUCT METALLIC COATING: AS 1397-2021 : CONTINUOUS HOT-DIP METALLIC COATED STEEL SHEET AND STRIP - COATINGS OF ZINC AND ZINC ALLOYED WITH ALUMINIUM AND MAGNESIUM.
F. INTERPOLATION OF CAPACITY AND SPACING VALUES IS PERMITTED.
G. DESIGN TABLES ARE BASED ON THE TEST RESULTS IN ACCORDANCE WITH NCC 2019 BUILDING CODE OF AUSTRALIA - VOLUME 2 PART 3.10.1 (F) REQUIREMENTS FOR "LHL" CYCLONIC TEST FOR METAL ROOFS AND RELEVANT CLAUSES OF AS/NZS 4600: 2018 COLD-FORMED STEEL STRUCTURES.

LIMITATIONS

1. **BATTEN DESIGN CAPACITY TABLES HAVE BEEN DEVELOPED FOR TIMBER SUPPORTS & MINIMUM 1.0mm BMT G550 STEEL SUPPORT.**
2. **ONLY FASTENERS NOTED CAN BE USED IN THIS DTCM SHEET. ALL FASTENERS ARE TO BE CLASS 4 IN ACCORDANCE TO AS 3566.2-2002 SELF-DRILLING SCREWS FOR THE BUILDING AND CONSTRUCTION INDUSTRIES PART 2: CORROSION RESISTANCE REQUIREMENTS.**
3. THE DATA IN THIS SHEET SHALL BE APPLICABLE TO TOPSPAN 40 BATTENS ONLY. PROFILE DIMENSIONS OF TOPSPAN 40 AS SUPPLIED FOR INSTALLATION SHALL COMPLY WITH TOPSPAN 40 PRODUCT DRAWINGS AS DEVELOPED BY LYSAGHT.
4. STEEL SUPPORT MEMBERS IN THIS DTCM SHEET SHALL BE: 1.0mm BMT G550, 1.2mm BMT G500, 1.5mm & 1.9mm BMT G450.
5. INSTALLATION SHALL BE IN ACCORDANCE WITH LYSAGHT CYCLONIC AREA DESIGN MANUAL AND TOPSPAN DESIGN & INSTALLATION GUIDE.
6. MAXIMUM BATTEN SPACING TABLES ARE BASED ON MAXIMUM ROOF HEIGHT (h) = 10M.
7. INCREASE FASTENER LENGTH IF FIXING OVER INSULATION TO MAINTAIN A MINIMUM OF 3 FASTENERS THREADS PROTRUDING THE FAR SIDE OF THE STEEL SUPPORTING MEMBER.
8. Pz (PRESSURE) IN THE TABLES SHALL BE INCREASED ACCORDING TO AS/NZS 1170.2:2021 CLAUSE 5.4.1 IN THE CASE OF: ELEVATED BUILDING ALLOWING FOR AIR FLOW UNDER: - h/b > 1, - h/d > 1.

Accepted for Inclusion in Deemed to Comply Manual

DTCM drawing number: M|360|01

Chairperson Signature:

Chairperson Name: Paul Nowland

Date of Approval: 18/10/2022 Expiry Date: 18/10/2027