

APPLICATION OF SANS 10400-XA (Ed.2)							
ZONE 4 - CLASSIFICATION H4 / Dwelling Houses							
	REQUIREMENTS	ACTUAL			STATUS		
1	DESIGN	The orientation is in accordance with the requirements of 5.1	Building facing North/South with longest axis orientated East/West			In order	
2	SHADING	The shading is in accordance with the requirements of 5.2	See Fenestration calculations			In order	
3	FENESTRATIONS & ROOF LIGHTS	The fenestration is in accordance with the requirements of 5.3	See Fenestration calculations			In order	
4	FLOOR INSULATION for under floor heating	The floors are in accordance with the requirements of 5.4 5.4.1. Surface bed (Heated) 5.4.2. Suspended (Exposed) R-value => 1.00	Under slab (Heated): Lambda board Total R-value:	mm 000 Req. =>1.0 mm 000 Req. =>1.0	R-Val. 0.00 0.00 R-Val. 0.00 0.00	N/A	
5	EXTERNAL WALLS Surface density > 270kg/m²	The external walls are in accordance with the requirements of 5.5 (Table 6) Zone 4: 50mm Cavity wall: R-value => 0.6	External wall: Outer Air-film (1/20) 15mm plaster 110mm Brick Air-spaces Cavity (Lambda board) 110mm Brick 15mm plaster Inner Air-film (1/9.4) Total R-value:	mm 000 015 110 1000 000 110 15 000 Req. =>0.6	W/m.K 20 0.75 0.82 0.15 0.024 0.82 0.75 0.9 0.61	R-Val.	In order
6	ROOF & CEILING ASSEMBLY	The roof and ceiling assemblies are in accordance with the requirements of 5.6 Zone: 4 Direction of Flow: UP 25° Metal roof with horizontal ceiling	22° DUAL PITCH ROOF Outer Air-film (1/20) Metal Roofing sheeting Air-space & Slatation Isover Aerolite insulation Isover Aerolite insulation Gypsum Ceiling Inner Air-film (1/11.0) Total R-value:	mm n/a 0.53 n/a 135.0 0.04 6.40 n/a Req. =>3.7	W/m.K 0.05 53.00 0.01 3.07 0.04 0.17 0.09 3.76	R-Val.	In order
7	BUILDING SEALING	The building sealing is in accordance with the requirements of 5.7	A foam or rubber compressible strip or a fibrous seal to restrict air leakage shall be fitted to each edge of an external door and other such opening that serves a habitable room. The maximum air leakage for windows and doors shall comply with the requirements of SANS 6113.			In order	
8	HOT WATER Classification H4 - Dwelling house	The building hot water is in accordance with the requirements of 6.1 Persons per Bedroom: 2 Number of Bedrooms: 2 2 Persons per bedroom x 2 Number of bedrooms 4 Occupancy	Average annual hot water usage: Annual hot water consumption: 115 x 4 = 460 Lp/d Stipulated 24hr hot water @ 60°C min: 50 Up Minimum solar hot water storage: ((50/1.5) x 4 = 300 Lip Stipulated 24hr hot water @ 60°C min: 50 L/p Minimum heat pump hot water storage: 50 x 4 = 200 Lip	Lip/d Lip/d Up Lip L/p Lip	In order		
	PIPE INSULATION (hot water pipe)	Internal pipe diameter ≤ 80mm: Minimum R-value of 1.00	Closed cell elastomeric thermal insulation	mm	W/m.K	R-Val.	In order
				38	0.036	1.06	
			Total R-value:	Req. 1.0	1.06		
9	LIGHTING Classification H4	The building lighting is in accordance with the requirements of 4.2	LED & CFL deemed to comply with Table 12 for H3 & H4			In order	

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