

21 January 2015

Wilmaplex Pty Ltd.
57 Lathams Road,
Carrum Downs, Vic 3201
Mr Graham storey

RE/ Wilmaplex Joist Hangers Design Capacity

This is to confirm that Wilmaplex commissioned Monash University to undertake the task of evaluating the design capacity of G300 Z275 Joist Hangers (JH35, 38, 45 and 50 X 60; JH35, 38, 45 and 50 X 90; JH35, 38, 45 and 50 X 120; JH35, 38, 45 and 50 X 140; JH35, 38, 45 and 50 X 180). The evaluation was carried out via testing and computations based on 3.15x35mm Wilmaplex galvanized flat head nails. The design capacities for downward and uplift load directions are given in Table 1. Refer to report Job no.: Wilmaplex/15/003, Report 15/004 dated 20/01/2015 for more details.

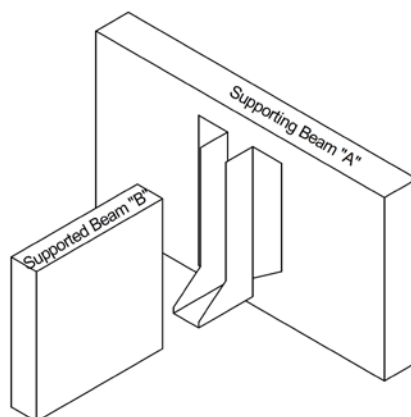


Figure 1 Details of Joist Hanger supporting and supported beams

Notes:

1. A capacity factor $\phi = 0.85$ and a duration factor $k_1 = 1.14$ for wind uplift loading was applied to all the capacities in Table 1.
2. See Figure 1 for Beams A and B details..
3. The values in Table 1 apply to Category 1 joints, design capacities for joint groups 2 and 3 are 0.94 and 0.88 consecutively.
4. Computations were undertaken in accordance with the relevant Standards, AS1720, AS/NZS1170 series and AS4055.

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Table 1 Limit states design capacities for Wilmaplex Joist Hangers

Joist Code	hanger	Fixing (Nails) to supporting Beam "A"	1.2G+1.5Q _f	Fixing to supporting Beam "B"	Wind Uplift (k ₁ =1.14)
			Dead + Floor Live Load		design Capacity (kN) for Joint Group JD4
JH35X60, JH45X60,	JH38X60, JH50X60	6	3.2	3	2.4
JH35X90, JH45X90,	JH38X90, JH50X90	8	4.2	4	3.1
JH35X120, JH45X120,	JH38X120, JH50X120	11	5.8	6	4.7
JH35X140, JH45X140,	JH38X140, JH50X140	14	7.4	8	6.3
JH35X180, JH45X180,	JH38X180, JH50X180	18	9.5	10	7.8