

COMPARATIVE PROPERTIES

Comparative properties of extruded styrene structural foam to timber

PROPERTIES	STRUCTURAL FOAM	BEECH	DOUGLAS FIR
DENSITY g/cc	0.56	0.64	0.48
ELASTIC MODULUS MPa	2430	11900	13400
RUPTURAL MODULUS MPa	59.80	103.00	85.00
WORK TO MAXIMUM LOAD KJ/M3	101	104	68
TENSILE STRENGTH MPa	30.00	7.00	2.30
COMPRESSION STRENGTH MPa	56.70	24.50	49.90
COMPRESSION STRESS AT PROPORTIONAL LIMIT (perpendicular to grain) MPa	20.70	3.70	5.50
IMPACT HEIGHT TO CAUSE FAILURE (22.7kg tup dropped on 2" x 2" and 28" span) M	0.70	1.04	0.79