

# Appendix A: Summary of tests on the components of Slimdek construction

The following tables summarise the testing carried out in the development of Slimdek. The background test reports are also identified.

## ASB tests

Beam size	Beam span (m)	Test configuration	Failure load* (kN/m <sup>2</sup> )	Test report
280 ASB prototype	7.5	Single beam	18	City University SCI RT 554
280 ASB prototype	7.5	Single beam	23	City University SCI RT 592
280 ASB 100 with openings	7.5	Single beam – transverse bending	16	City University SCI RT 645
280 ASB 100 with openings	6	2 x 6m square floor bays	30	City University SCI RT 740
280 ASB 100	5.4	Single beam – transverse bending	30	University of Kaiserslautern (G)

\*Failure load equivalent to a 6m bay width

## ComFlor 225 Composite slab tests

Slab depth/concrete type	Slab span (m)	Failure load (kN/m <sup>2</sup> )	Test report
285mm LWC	3	> 90	University of Salford
350mm LWC	8	15	University of Salford
300mm NWC	4	66	University of Kaiserslautern (G)
300mm NWC	6	34	University of Kaiserslautern (G)

All reviewed in SCI-RT-703

## Fire tests

Beam size	Beam span (m)	Slab span (m)	Fire resistance	Test report
280 ASB 100	4.5	-	107	Warrington Fire Research
300 ASB 153	4.5	-	75	Warrington Fire Research
280 ASB prototype with openings	Unloaded	NA	Protected with intumescent to exposed bottom flange only	Warrington Fire Research*
Slimflor Beam	4.3	3.8	90 (beam) 120 (slab)	TNO (NL)
RHSFB	4.3	6	90 (beam) 120 (slab)	TNO (NL)
ASB and RHSFB	6	6	> 90	BRE Natural Fire Test*

\*All reviewed in SCI-P-175, except BRE and Warrington tests

## ComFlor 225 deck tests

Deck span (m)	Test configuration	Failure load (kNm)	Test report
5.5	Unpropped span	8.3	Welsh Technology Centre RT703
6.0	Unpropped span	6.9	Welsh Technology Centre RT703
8.0	Single prop	11	Welsh Technology Centre RT703
-	End diaphragm test	38 kN/m	Welsh Technology Centre RT703
-	Local web crushing test	36 kN/m	Welsh Technology Centre RT703