

Composite Floor with QI Deck-Plate*

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1 Introduction

The QL deck-plate is a composite floor which locks with concrete using embossment on its surface to form a unitary structure. The name "QL" is a shortening of "Quick Lock" floor. Developed by Kawatetsu Steel Products Corp. with technical assistance from KSC.

Table 1 Specifications

	QL deck	QL cellular
Profiles	QL99-50, QL99-75	QC99-50, QC99-75
Width (mm)	600-900	600

Table 2 Fire resistance floor listings

Design No.	Profile	Concrete*1	Span (m)	Max. load (kgf/m ²)	Concrete thickness (mm)	Wire mesh $\phi 6$	Deck support
(通) F1001 1 h	QL99-50	Reg LW	3 3	550 400	80 70	@ 150 @ 150	Continuous beam support
	QL99-75	Reg LW	3 3	550 400	80 70	@ 150 @ 150	
(通) F2001 2 h	QL99-50	Reg LW	2.7 2.7	360 360	95 85	@ 100 @ 150	
	QL99-75	Reg LW	3 3	360 360	90 85	@ 150 @ 150	
	Reg	Reg	2.7	400	80	@ 150	