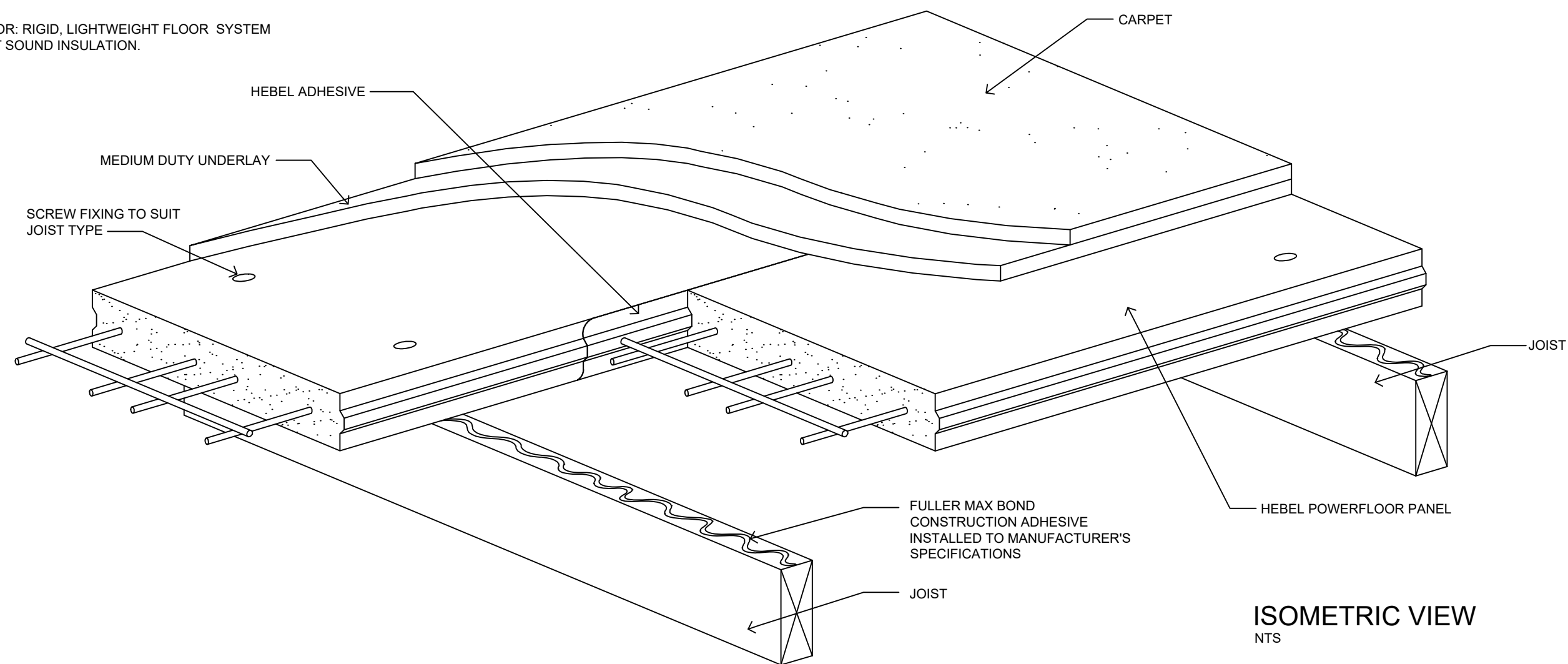


HEBEL POWERFLOOR SYSTEM - CARPET

RECOMMENDED FOR: RIGID, LIGHTWEIGHT FLOOR SYSTEM WITH HIGH IMPACT SOUND INSULATION.






ISOMETRIC VIEW
NTS

CARPET		FIRE	ACOUSTIC			THERMAL	
CODE	SYSTEM DESCRIPTION	FRL	Rw	Rw+Ctr	Lnw	R-VALUE UP	R-VALUE DOWN
HEBEL 1184	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR ENCLOSED	90/90/90*	37	33	45	1.46	1.58
HEBEL 1185	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR UNENCLOSED	90/90/90*	37	33	45	0.87	0.92
HEBEL 1186	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6209)	-/-	55	48	33	3.07	3.36
HEBEL 1187	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6217)	60/60/60	58	52	30	3.14	3.44
HEBEL 1188	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6222)	90/90/90	59	53	30	3.18	3.47

NOTE: *FIRE SOURCE FROM ABOVE ONLY.

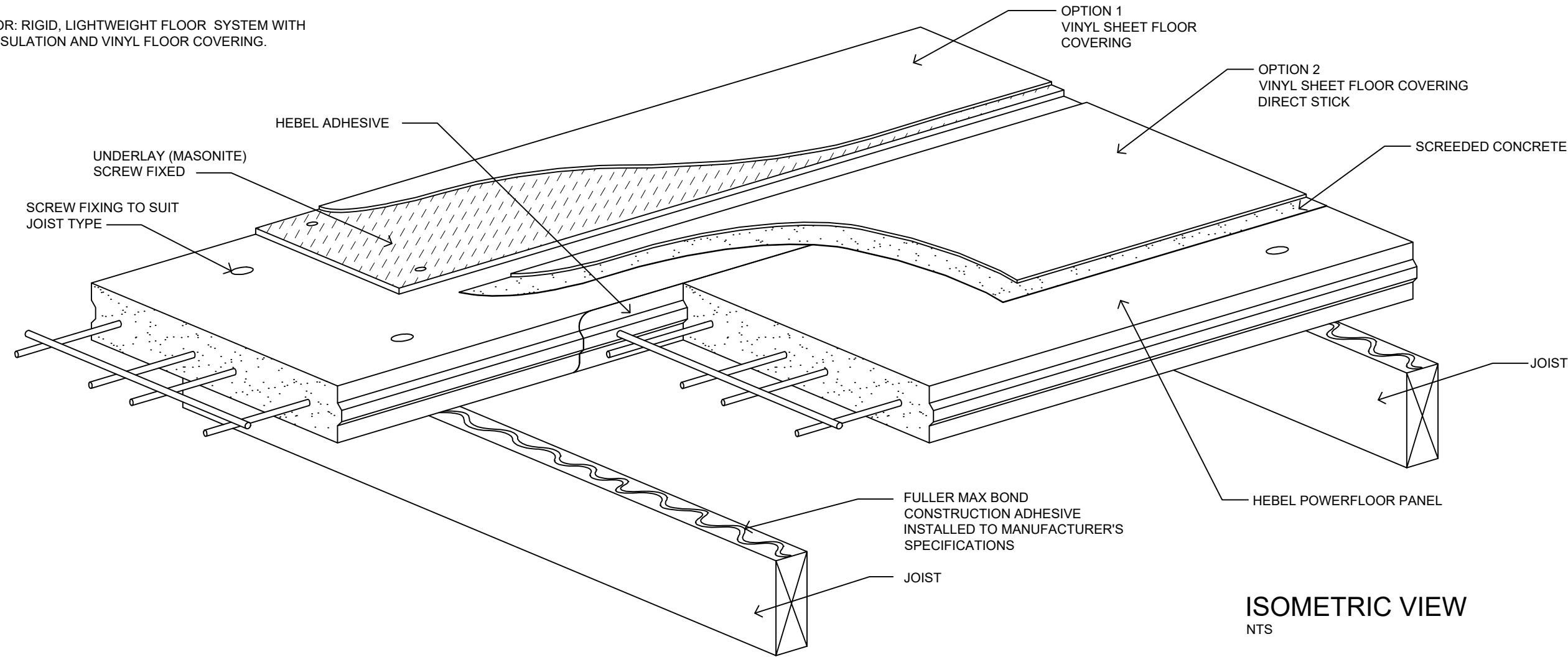
NOTE: PATCHING OF RECESSES AT FIXINGS OR LOCALISED CHIPPING MAY BE REQUIRED PRIOR TO INSTALLATION OF FLOOR COVERINGS.

DESCRIPTION
COMBINED FLOOR AND CEILING SYSTEM THERMAL VALUES ARE OPINIONS DETERMINED FOR INTERNAL CONDITIONS ABOVE AND INTERNAL CONDITIONS BELOW.
AIRFLOW DIRECTION - UP = SUMMER, DOWN = WINTER
WHERE STEEL FRAMED JOISTS ARE USED, VALUES FOR 'R-VALUE UP' AND 'R-VALUE DOWN' SHOULD BE REDUCED BY 10% e.g. R-VALUE OF 3.00 RESULTS IN R-VALUE OF 2.70 AFTER THE 10% REDUCTION.
FOR DETAILED INFORMATION ON CEILING SYSTEMS, PLEASE REFER TO CSR GYPROCK.

 CSR BUILDING PRODUCTS LTD Head Office: Trinitil 3, 39 DELHI RD, NORTH RYDE NSW 2113 LOCKED BAG 1345, NORTH RYDE BC NSW 1670 A.B.N. 55 008 631 356 Ph: 1300 369 448 www.hebelaustralia.com.au	 hebel The better way to build CSR Building Products Limited A.B.N. 55 008 631 356	 112 Wisemans Ferry Road Somersby, NSW 2500 Phone: (02) 4340 3300 Fax: (02) 4340 3300	FIGURE HEBEL 1184 - 1188	TITLE HEBEL POWERFLOOR SYSTEM CONSTRUCTION DETAILS CARPET FLOOR COVERING			
			DESIGN GUIDE REFERENCE HELIT017 JUNE 2018	SCALE NTS @ A3	SHEET SIZE A3	DRAWN ZK	DATE 15.06.18
							SHEET NO. 1 of 5

HEBEL POWERFLOOR SYSTEM - VINYL SHEET WITH MASONITE

RECOMMENDED FOR: RIGID, LIGHTWEIGHT FLOOR SYSTEM WITH GOOD THERMAL INSULATION AND VINYL FLOOR COVERING.




ISOMETRIC VIEW
NTS

VINYL SHEET WITH MASONITE		FIRE	ACOUSTIC			THERMAL	
CODE	SYSTEM DESCRIPTION	FRL	Rw	Rw+Ctr	Lnw	R-VALUE UP	R-VALUE DOWN
HEBEL 1199	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR ENCLOSED	90/90/90*	38	34	76	1.18	1.30
HEBEL 1200	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR UNENCLOSED	90/90/90*	38	34	76	0.59	0.64
HEBEL 1201	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6209)	-/-/-	56	48	64	2.79	3.08
HEBEL 1202	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6217)	60/60/60	59	52	60	2.87	3.16
HEBEL 1203	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6222)	90/90/90	60	53	59	2.90	3.19


NOTE: *FIRE SOURCE FROM ABOVE ONLY.

NOTE: PATCHING OF RECESSES AT FIXINGS OR LOCALISED CHIPPING MAY BE REQUIRED PRIOR TO INSTALLATION OF FLOOR COVERINGS.

DESCRIPTION
COMBINED FLOOR AND CEILING SYSTEM THERMAL VALUES ARE OPINIONS DETERMINED FOR INTERNAL CONDITIONS ABOVE AND INTERNAL CONDITIONS BELOW.
AIRFLOW DIRECTION - UP = SUMMER, DOWN = WINTER
WHERE STEEL FRAMED JOISTS ARE USED, VALUES FOR 'R-VALUE UP' AND 'R-VALUE DOWN' SHOULD BE REDUCED BY 10% e.g. R-VALUE OF 3.00 RESULTS IN R-VALUE OF 2.70 AFTER THE 10% REDUCTION.
FOR DETAILED INFORMATION ON CEILING SYSTEMS, PLEASE REFER TO CSR GYPROCK.



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hebel
The better way to build
CSR Building Products Limited
A.B.N. 55 008 631 356

FIGURE
HEBEL 1199 - 1203

DESIGN GUIDE REFERENCE
HELIT017 JUNE 2018

TITLE
HEBEL POWERFLOOR SYSTEM CONSTRUCTION DETAILS
VINYL SHEET WITH MASONITE

SCALE
NTS @ A3

SHEET SIZE
A3

SHEET NO.
2 of 5

DRAWN
ZK

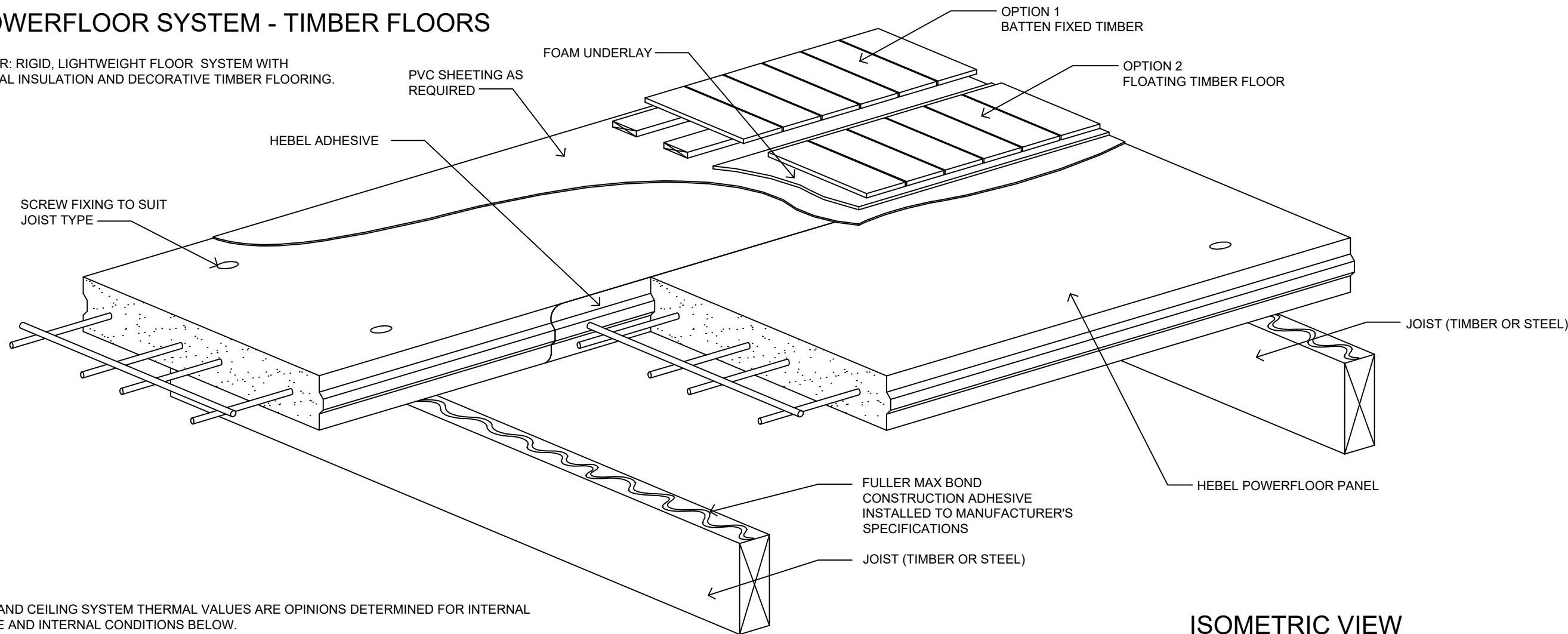
CHECK
ZK

DATE
15.06.18

REVISION
B

HEBEL POWERFLOOR SYSTEM - TIMBER FLOORS

RECOMMENDED FOR: RIGID, LIGHTWEIGHT FLOOR SYSTEM WITH EXCELLENT THERMAL INSULATION AND DECORATIVE TIMBER FLOORING.



DESCRIPTION
COMBINED FLOOR AND CEILING SYSTEM THERMAL VALUES ARE OPINIONS DETERMINED FOR INTERNAL CONDITIONS ABOVE AND INTERNAL CONDITIONS BELOW.
AIRFLOW DIRECTION - UP = SUMMER, DOWN = WINTER
WHERE STEEL FRAMED JOISTS ARE USED, VALUES FOR 'R-VALUE UP' AND 'R-VALUE DOWN' SHOULD BE REDUCED BY 10% e.g. R-VALUE OF 3.00 RESULTS IN R-VALUE OF 2.70 AFTER THE 10% REDUCTION.
FOR DETAILED INFORMATION ON CEILING SYSTEMS, PLEASE REFER TO CSR GYPROCK.

ISOMETRIC VIEW
NTS

TIMBER ON BATTENS		FIRE	ACOUSTIC			THERMAL	
CODE	SYSTEM DESCRIPTION	FRL	Rw	Rw+Ctr	Lnw	R-VALUE UP	R-VALUE DOWN
HEBEL 1204	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR ENCLOSED	90/90/90*	37	33	80	1.43	1.59
HEBEL 1205	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR UNENCLOSED	90/90/90*	37	33	80	0.84	0.93
HEBEL 1206	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6209)	-/-/-	55	48	65	3.05	3.38
HEBEL 1207	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6217)	60/60/60	58	52	61	3.12	3.45
HEBEL 1208	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6222)	90/90/90	59	53	59	3.16	3.49

NOTE: *FIRE SOURCE FROM ABOVE ONLY.

TIMBER FLOATING FLOOR		FIRE	ACOUSTIC			THERMAL	
CODE	SYSTEM DESCRIPTION	FRL	Rw	Rw+Ctr	Lnw	R-VALUE UP	R-VALUE DOWN
HEBEL 1209	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR ENCLOSED	90/90/90*	37	33	77	1.33	1.45
HEBEL 1210	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR UNENCLOSED	90/90/90*	37	33	77	0.74	0.79
HEBEL 1211	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6209)	-/-/-	56	48	63	2.94	3.23
HEBEL 1212	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6217)	60/60/60	59	52	59	3.01	3.31
HEBEL 1213	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6222)	90/90/90	60	53	58	3.05	3.34

NOTE: PATCHING OF RECESSES AT FIXINGS OR LOCALISED CHIPPING MAY BE REQUIRED PRIOR TO INSTALLATION OF FLOOR COVERINGS.



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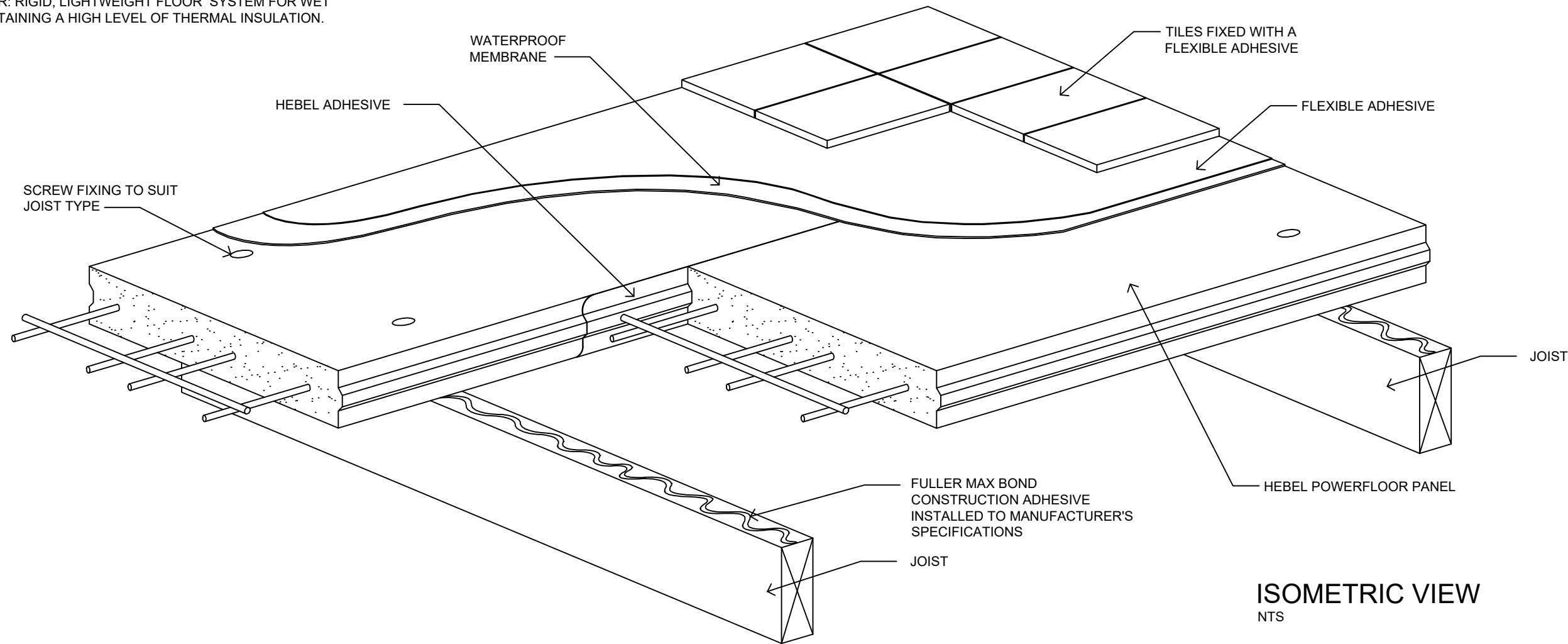
112 Wisemans Ferry Road
Somersby, NSW 2500
Phone: (02) 4340 3300
Fax: (02) 4340 3300

FIGURE
HEBEL 1204 - 1213
DESIGN GUIDE REFERENCE
HELI017 JUNE 2018

TITLE
HEBEL POWERFLOOR SYSTEM CONSTRUCTION DETAILS
TIMBER FLOOR COVERINGS
SCALE
NTS @ A3
SHEET SIZE
A3
DRAWN
ZK
DATE
15.06.18
SHEET NO.
3 of 5
CHECK
ZK
REVISION
B

HEBEL POWERFLOOR SYSTEM - 8mm CERAMIC TILES

RECOMMENDED FOR: RIGID, LIGHTWEIGHT FLOOR SYSTEM FOR WET AREAS WHILE MAINTAINING A HIGH LEVEL OF THERMAL INSULATION.






NOTE: PATCHING OF RECESSES AT FIXINGS OR LOCALISED CHIPPING MAY BE REQUIRED PRIOR TO INSTALLATION OF FLOOR COVERINGS.

DESCRIPTION
COMBINED FLOOR AND CEILING SYSTEM THERMAL VALUES ARE OPINIONS DETERMINED FOR INTERNAL CONDITIONS ABOVE AND INTERNAL CONDITIONS BELOW.
AIRFLOW DIRECTION - UP = SUMMER, DOWN = WINTER
WHERE STEEL FRAMED JOISTS ARE USED, VALUES FOR 'R-VALUE UP' AND 'R-VALUE DOWN' SHOULD BE REDUCED BY 10% e.g. R-VALUE OF 3.00 RESULTS IN R-VALUE OF 2.70 AFTER THE 10% REDUCTION.
FOR DETAILED INFORMATION ON CEILING SYSTEMS, PLEASE REFER TO CSR GYPROCK.

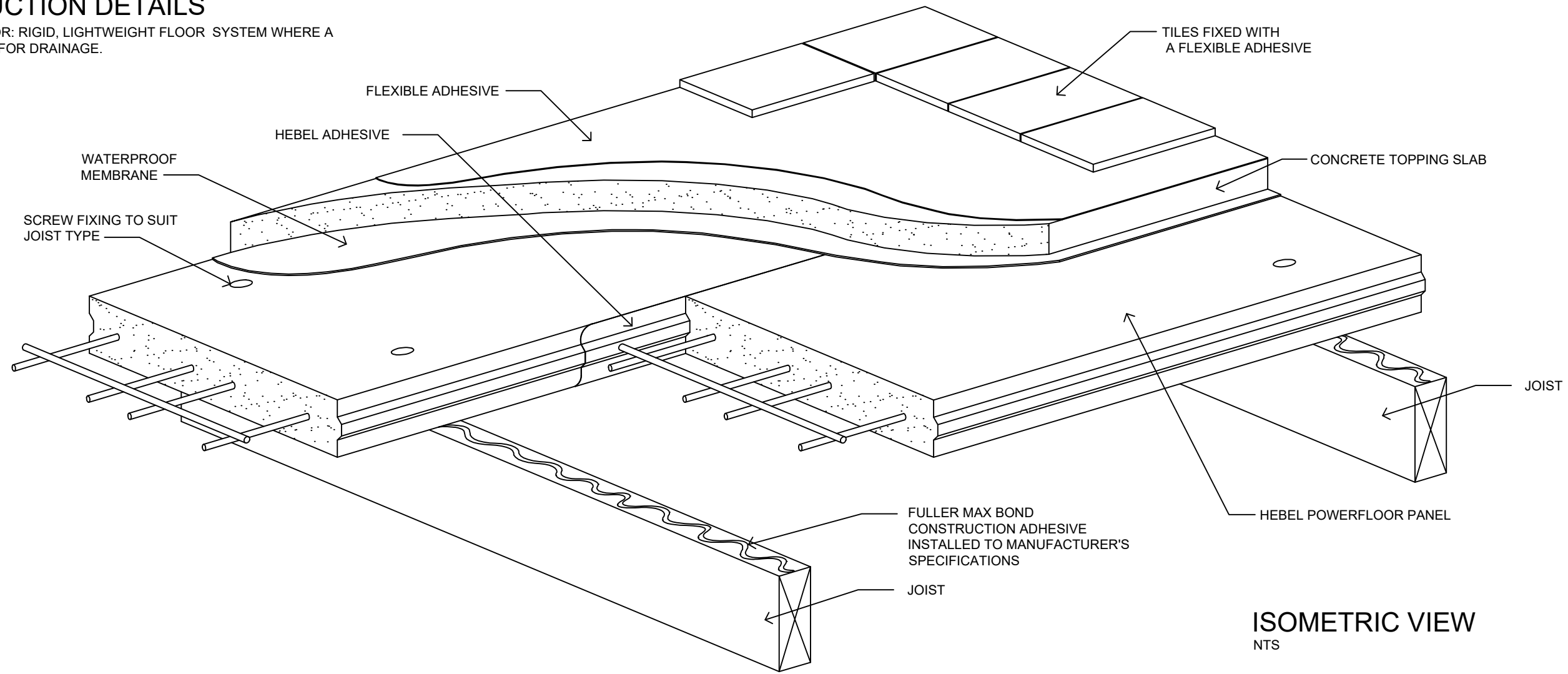
CARPET		FIRE	ACOUSTIC			THERMAL	
CODE	SYSTEM DESCRIPTION	FRL	Rw	Rw+Ctr	Lnw	R-VALUE UP	R-VALUE DOWN
HEBEL 1189	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR ENCLOSED	90/90/90*	38	34	82	1.19	1.31
HEBEL 1190	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR UNENCLOSED	90/90/90*	38	34	82	0.60	0.65
HEBEL 1191	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6209)	-/-/-	54	48	74/ 64**	2.80	3.09
HEBEL 1192	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6217)	60/60/60	57	51	70/ 60**	2.88	3.16
HEBEL 1193	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6222)	90/90/90	58	52	69/ 59**	2.91	3.20

NOTE: *FIRE SOURCE FROM ABOVE ONLY.
**WITH MIN. 4.5mm RUBBER UNDERLAY.

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			DESIGN GUIDE REFERENCE HELI017 JUNE 2018	SCALE NTS @ A3	SHEET SIZE A3	DRAWN ZK	DATE 15.06.18
				SHEET NO. 4 of 5 CHECK ZK REVISION B			

HEBEL POWERFLOOR SYSTEM 8mm TILES ON 50mm TOPPING SLAB
CONSTRUCTION DETAILS

RECOMMENDED FOR: RIGID, LIGHTWEIGHT FLOOR SYSTEM WHERE A FALL IS REQUIRED FOR DRAINAGE.





NOTE: PATCHING OF RECESSES AT FIXINGS OR LOCALISED CHIPPING MAY BE REQUIRED PRIOR TO INSTALLATION OF FLOOR COVERINGS.

DESCRIPTION
COMBINED FLOOR AND CEILING SYSTEM THERMAL VALUES ARE OPINIONS DETERMINED FOR INTERNAL CONDITIONS ABOVE AND INTERNAL CONDITIONS BELOW.
AIRFLOW DIRECTION - UP = SUMMER, DOWN = WINTER
WHERE STEEL FRAMED JOISTS ARE USED, VALUES FOR 'R-VALUE UP' AND 'R-VALUE DOWN' SHOULD BE REDUCED BY 10% e.g. R-VALUE OF 3.00 RESULTS IN R-VALUE OF 2.70 AFTER THE 10% REDUCTION.
FOR DETAILED INFORMATION ON CEILING SYSTEMS, PLEASE REFER TO CSR GYPROCK.

CARPET		FIRE	ACOUSTIC			THERMAL	
CODE	SYSTEM DESCRIPTION	FRL	Rw	Rw+Ctr	Lnw	R-VALUE UP	R-VALUE DOWN
HEBEL 1194	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR ENCLOSED	90/90/90*	43	39	79	1.22	1.34
HEBEL 1195	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET GROUND FLOOR UNENCLOSED	90/90/90*	43	39	79	0.63	0.68
HEBEL 1196	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6209)	-/-/-	57	49	71/ 60**	2.83	3.12
HEBEL 1197	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6217)	60/60/60	60	53	67/ 56**	2.91	3.20
HEBEL 1198	HEBEL HOUSES, LOW RISE AND COMMERCIAL FLOOR CARPET 2nd STOREY GYPROCK CEILING (CSR 6222)	90/90/90	61	54	66/ 55**	2.95	3.23

NOTE: *FIRE SOURCE FROM ABOVE ONLY.
**WITH MIN. 4.5mm RUBBER UNDERLAY.

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		DESIGN GUIDE REFERENCE HELI017 JUNE 2018	SCALE NTS @ A3	SHEET SIZE A3	DRAWN ZK	DATE 15.06.18
				SHEET NO. 5 of 5	CHECK ZK	REVISION B