

Certificate Number: DOP/HANUK/FP-Hollowcore/A159

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A159

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 150 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength f _{pk} :	1770 kN/m²
Tensile 0.1% proof stress	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	64.9 kNm
Shear capacity(of the end section)	98.1 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation other NDPs see the Technical documentation	n index, possible complementary information on fire resistance and
Technical documentation: Product Handbook and Technic	al File*
* Available on request	
Note information on Dangerous Substances will only be of	given when and where required in the appropriate form.
The performance of the product identified above is in conformity of manufacture's instructions.	
Signed on behalf of the manufacture:	Full name: Matthew Clay

Date:

03 March 2014

Position: Managing Director (Design Solution)



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Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A159 Category I: Prestressed/Reinforced Hollow core slabs(for floors)		
Concrete: Compressive strength	50.0 N/mm²	
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	1770 kN/m² 1470 kN/m²	
Mechanical Resistance(design values):		
Bending moment capacity (of middle section)	64.9 kNm	
Shear capacity(of the end section)	98.1 kN	
Resistance to fire R	60 minutes	
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation Technical documentation: Product Handbook and Technical * Available on request		
	Category I: Prestressed/Reinforced I Concrete: Compressive strength	



Certificate Number: DOP/HANUK/FP-Hollowcore/A250

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A250

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 250 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	203.2 kNm
Shear capacity(of the end section)	161.3 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation other NDPs see the Technical documentation	index, possible complementary information on fire resistance and

Technical documentation: Product Handbook and Technical File*

* Available on request

Concrete:

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: Matthew C

Position: Managing Director (Design Solution) Date: 03 March 2014



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Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A250

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel: Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity (of middle section)	203.2 kNm
Shear capacity(of the end section)	161.3 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation	index, possible complementary information on fire resistance
Technical documentation: Product Handbook and Technica	I File *



Certificate Number: DOP/HANUK/FP-Hollowcore/E250

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- E250

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 250 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Compressive strength f _{ck} :	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	244.8 kNm
Shear capacity(of the end section)	164.9 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation	

* Available on request

Concrete:

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: Matthew Cla

Technical documentation: Product Handbook and Technical File*

Position: Managing Director (Design Solution) Date: 03 March 2014



1333

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: E250

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength f _{ck} :	50.0 N/mm²
Prestressing steel: Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	244.8 kNm
Shear capacity(of the end section)	164.9 kN
Silear Capacity(or the end Section)	164.9 KIN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation i	index, possible complementary information on fire resistance
and other NDPs see the Technical documentation	
Technical documentation: Product Handbook and Technical	I File *



Certificate Number: DOP/HANUK/FP-Hollowcore/A300

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A300

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 300 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength f _{pk} :	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	253.3 kNm
Shear capacity(of the end section)	192.3 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acquetic inculation	o indox, possible complementary information on fire resi

For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File*

* Available on request

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: half the Signed on behalf of the manufacture: Full name: Matthew Cl

Position: Managing Director (Design Solution) Date: 03 March 2014



1333

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A300

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength f _{ck} :	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress $f_{p0.1k}$:	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	253.3 kNm
Shear capacity(of the end section)	192.3 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation	index, possible complementary information on fire resistance
Technical documentation: Product Handbook and Technica	l File *



Certificate Number: DOP/HANUK/FP-Hollowcore/E300

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- E300

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 300 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011 Regulation (EU) No. 305 / 2011

Compressive strengthf _{ck} :	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress $f_{p0.1k}$:	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	316.8 kNm
Shear capacity(of the end section)	201.6 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation other NDPs see the Technical documentation	index, possible complementary information on fire resistance and

* Available on request

Concrete:

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture:

Technical documentation: Product Handbook and Technical File*

Position: Managing Director (Design Solution) 03 March 2014



Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: E300

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete: Compressive strength	50.0 N/mm²
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	1770 kN/m² 1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity (of middle section)	316.8 kNm
Shear capacity(of the end section)	201.6 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation	index, possible complementary information on fire resistance

Technical documentation: Product Handbook and Technical File *



Certificate Number: DOP/HANUK/FP-Hollowcore/P100

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- P100

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 100 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength f _{pk} :	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	43.1 kNm
Shear capacity(of the end section)	186.2 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acquistic insulation	n index, possible complementary information on fire resi

For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File*

* Available on request

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: Matthew C

Position: Managing Director (Design Solution) Date: 03 March 2014



1333

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: P100

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete: Compressive strength	50.0 N/mm²	
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	1770 kN/m² 1470 kN/m²	
Mechanical Resistance(design values):		
Bending moment capacity (of middle section)	43.1 kNm	
Shear capacity(of the end section)	186.2 kN	
Resistance to fire R	60 minutes	
For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation Technical documentation: Product Handbook and Technical File *		



Certificate Number: DOP/HANUK/FP-Hollowcore/P150C

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- P150C

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 150 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Compressive strength f _{ck} :	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress $f_{p0.1k}$:	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	103.3 kNm
Shear capacity(of the end section)	284.2 kN
Resistance to fire R	90 minutes
For geometrical data detailing, durability, acoustic insulation other NDPs see the Technical documentation	index, possible complementary information on fire resistance and

* Available on request

Concrete:

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: Matthew Cla

Technical documentation: Product Handbook and Technical File*

Position: Managing Director (Design Solution) Date: 03 March 2014



1333

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: P150C

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength f _{ck} :	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress $f_{p0.1k}$:	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	103.3 kNm
(6	100.0 M III
Shear capacity(of the end section)	284.2 kN
Resistance to fire R	90 minutes
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation	index, possible complementary information on fire resistance
Technical documentation: Product Handbook and Technical	al File *



Certificate Number: DOP/HANUK/FP-Hollowcore/A159H

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A159H

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 150 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strengthf _{pk} :	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	65.0 kNm
Shear capacity(of the end section)	130.7 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation other NDPs see the Technical documentation	n index, possible complementary information on fire resistance and
Technical documentation: Product Handbook and Technical	al File*
* Available on request	
Note information on Dangerous Substances will only be g	iven when and where required in the appropriate form.
The performance of the product identified above is in conformity v	with the declared values, when installed in accordance with the
manufacture's instructions.	

Position: Managing Director (Design Solution) Date: 03 March 2014

Signed on behalf of the manufacture:



1333

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011 Precast concrete products - Hollow core slabs

Product Name: A159H

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress $f_{p0.1k}$:	1470 kN/m²
Mechanical Resistance (design values):	
Bending moment capacity	
(of middle section)	65.0 kNm
Shear capacity(of the end section)	130.7 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation	index, possible complementary information on fire resistance
and other NDPs see the Technical documentation	

Technical documentation: Product Handbook and Technical File *



Certificate Number: DOP/HANUK/FP-Hollowcore/A150

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A150

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 150 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance (design values): Bending moment capacity	
(of middle section)	100.7 kNm
Shear capacity(of the end section)	105.6 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation other NDPs see the Technical documentation	index, possible complementary information on fire resistance and
Technical documentation: Product Handbook and Technical	al File*
* Available on request	

manufacture's instructions.

Signed on behalf of the manufacture: health Teu Full name:

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the

Position: Managing Director (Design Solution) Date: 03 March 2014

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Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A150

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	100.7 kNm
Shear capacity(of the end section)	105.6 kN
Silear capacity(or the end section)	105.6 KIN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation	index, possible complementary information on fire resistance

Technical documentation: Product Handbook and Technical File *



Certificate Number: DOP/HANUK/FP-Hollowcore/A150H

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A150H

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 150 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	103.2 kNm
Shear capacity(of the end section)	144.7 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation other NDPs see the Technical documentation	index, possible complementary information on fire resistance and

Technical documentation: Product Handbook and Technical File*

* Available on request

Concrete:

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: half the Full name: Matthew

Position: Managing Director (Design Solution) Date: 03 March 2014



1333

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011 Precast concrete products - Hollow core slabs

Product Name: A150H
Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength f _{ck} :	50.0 N/mm²
	0.0
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	103.2 kNm
Shear capacity(of the end section)	144.7 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation	index, possible complementary information on fire resistance
Technical documentation: Product Handbook and Technical	ıl File *



Certificate Number: DOP/HANUK/FP-Hollowcore/A150HN

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A150HN

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 150 x 520 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011 Regulation (EU) No. 305 / 2011

	Concrete:	
	Compressive strength f _{ck} :	50.0 N/mm²
	Prestressing steel:	
	Ultimate tensile strength	1770 kN/m²
	Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
	Mechanical Resistance(design values): Bending moment capacity	
	(of middle section)	47.9 kNm
	Shear capacity(of the end section)	65.0 kN
	Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation		
	Technical documentation: Product Handbook and Technical	al File*
	* Available on request	
	Note information on Dangerous Substances will only be given when and where required in the appropriate form.	

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture:

Position: Managing Director (Design Solution) 03 March 2014



Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A150HN

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete:	
Compressive strength f _{ck} :	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strength	1770 kN/m²
Tensile 0.1% proof stress	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	47.9 kNm
Shear capacity(of the end section)	65.0 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation	
Technical documentation: Product Handbook and Technical	I File *



Certificate Number: DOP/HANUK/FP-Hollowcore/A209

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A209

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 2000 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

e and

* Available on request

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: half the Full name: Matthew Cla

Position: Managing Director (Design Solution) Date: 03 March 2014



1333

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A209

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete: Compressive strength	50.0 N/mm²
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	1770 kN/m² 1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity (of middle section)	93.0 kNm
Shear capacity(of the end section)	118.2 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation and other NDPs see the Technical documentation	index, possible complementary information on fire resistance

Technical documentation: Product Handbook and Technical File *



Certificate Number: DOP/HANUK/FP-Hollowcore/A200

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A200

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 200 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

Concrete:	
Compressive strength	50.0 N/mm²
Prestressing steel:	
Ultimate tensile strengthf _{pk} :	1770 kN/m²
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
Mechanical Resistance(design values):	
Bending moment capacity	
(of middle section)	140.0 kNm
Shear capacity(of the end section)	123.7 kN
Resistance to fire R	60 minutes
For geometrical data detailing, durability, acoustic insulation	index possible complementary information on fire resis

For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File*

* Available on request

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture: Matthew C

Position: Managing Director (Design Solution) Date: 03 March 2014



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Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A200

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete: Compressive strength	50.0 N/mm²	
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	1770 kN/m² 1470 kN/m²	
Mechanical Resistance(design values):		
Bending moment capacity (of middle section)	140.0 kNm	
Shear capacity(of the end section)	123.7 kN	
Resistance to fire R	60 minutes	
For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation		

Technical documentation: Product Handbook and Technical File *



Certificate Number: DOP/HANUK/FP-Hollowcore/E200

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- E200

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 200 x 1200 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011 Regulation (EU) No. 305 / 2011

Concrete:		
Compressive strength f _{ck} :	50.0 N/mm²	
Prestressing steel:		
Ultimate tensile strength f _{pk} :	1770 kN/m²	
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²	
Mechanical Resistance(design values):		
Bending moment capacity		
(of middle section)	151.5 kNm	
Shear capacity(of the end section)	129.8 kN	
Resistance to fire R	60 minutes	
For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistar		

nce and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File*

* Available on request

Note information on Dangerous Substances will only be given when and where required in the appropriate form.

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacture's instructions.

Signed on behalf of the manufacture:

Position: Managing Director (Design Solution) 03 March 2014



Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: E200

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Concrete: Compressive strength	50.0 N/mm²	
P Gr		
Prestressing steel:		
Ultimate tensile strength	1770 kN/m²	
Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²	
Mechanical Resistance(design values):		
Bending moment capacity		
(of middle section)	151.5 kNm	
Shear capacity(of the end section)	129.8 kN	
Resistance to fire R	60 minutes	
For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation		
Taskaiseldesamentetiene Bullett und Durch der der der		

Technical documentation: Product Handbook and Technical File



03 March 2014

Declaration of Performance

Certificate Number: DOP/HANUK/FP-Hollowcore/A200N

The undersigned, representing the following:

Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

Confirms that:

Prestressed/Reinforced Hollow core slabs(for floors):- A200N

Manufacturing Plant: Hoveringham

13

FPC Certificate No.: 1333 - CPD - 00137

Conforms to harmonised European Standard: BS EN 1168:2005+A3 2011

Category I: 200 x 520 concrete pre-stressed units

Provision to which the prodcut conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011

Regulation (EU) No. 305 / 2011

	Concrete:	
	Compressive strength	50.0 N/mm²
	Prestressing steel:	
	Ultimate tensile strengthf _{pk} :	1770 kN/m²
	Tensile 0.1% proof stress f _{p0.1k} :	1470 kN/m²
	Mechanical Resistance(design values):	
	Bending moment capacity	
	(of middle section)	80.8 kNm
	Shear capacity(of the end section)	62.3 kN
	Resistance to fire R	60 minutes
	For geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation	
Technical documentation: Product Handbook and Technical File*		
	* Available on request	
Note information on Dangerous Substances will only be given when and where required in the appropriate form.		
	The performance of the product identified above is in conformity wanufacture's instructions.	vith the declared values, when installed in accordance with the
	Signed on behalf of the manufacture:	Full name: Matthew Clay

Position: Managing Director (Design Solution)

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Hanson Building Products Ltd Hanson House, 14 Castle Hill, Maidenhead, SL6 4JJ

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FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011 Precast concrete products - Hollow core slabs

Precast concrete products - Hollow core si

Product Name: A200N

Category I: Prestressed/Reinforced Hollow core slabs(for floors)

Nama wata.		
Compressive strengthf _{ck} :	50.0 N/mm²	
Prestressing steel: Ultimate tensile strength	1770 kN/m² 1470 kN/m²	
lechanical Resistance(design values):		
Sending moment capacity of middle section)	80.8 kNm	
Shear capacity(of the end section)	62.3 kN	
Resistance to fire R	60 minutes	
for geometrical data detailing, durability, acoustic insulation index, possible complementary information on fire resistance and other NDPs see the Technical documentation Technical documentation: Product Handbook and Technical File *		
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