

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/P100

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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, 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 manufacturer's instructions.

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

Position: Managing Director (Design Solution) Date: 05 October 2015

Version: 1



1333

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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..... f_{ck} : C50/60 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, 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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Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A200N

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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

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

Position: Managing Director (Design Solution) Date: 05 October 2015

Version: 1



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FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

13

FPC Certificate No.: 1333 - CPD - 00137

BS EN 1168:2005+A3 2011

Precast concrete products - Hollow core slabs

Product Name: A200N

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

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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

Version: 1



Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/E200

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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 resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File*

* Available on request

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Position: Managing Director (Design Solution) Date: 05 October 2015

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FORTERRA
5 Grange Park Court, Roman Way
Northampton
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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..... f_{ck} : C50/60 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 resistance and other NDPs see the Technical documentation

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Version: 1



Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A250

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 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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Signed on behalf of the manufacture: *Matthew Clay* Full name: Matthew Clay

Position: Managing Director (Design Solution) Date: 05 October 2015

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FORTERRA
5 Grange Park Court, Roman Way
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NN4 5EA

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..... f_{ck} : C50/60 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)..... 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 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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Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/E250

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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

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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} : C50/60 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)..... 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

Technical documentation: Product Handbook and Technical File *

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Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A300

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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, 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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FORTERRA
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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} : C50/60 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, 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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Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/E300

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 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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FORTERRA
5 Grange Park Court, Roman Way
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NN4 5EA

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..... f_{ck} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File *

* Available on request

Version: 1



Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/P150C

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File*

* Available on request

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

Position: Managing Director (Design Solution) Date: 05 October 2015

Version: 1



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FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File *

* Available on request

Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A150

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File*

* Available on request

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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..... f_{ck} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File *

* Available on request

Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A159

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 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.

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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..... f_{ck} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

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Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A150HN

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 File*

* Available on request

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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} : C50/60 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)..... 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 File *

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Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A150H

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 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:  Full name: Matthew Clay

Position: Managing Director (Design Solution) Date: 05 October 2015

Version: 1



1333

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File *

* Available on request

Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A159H

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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*

* 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:  Full name: Matthew Clay

Position: Managing Director (Design Solution) Date: 05 October 2015

Version: 1



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FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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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..... f_{ck} : C50/60 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)..... 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 *

* Available on request

Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A200

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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*

* 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:  Full name: Matthew Clay

Position: Managing Director (Design Solution) Date: 05 October 2015

Version: 1



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FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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..... f_{ck} : C50/60 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)..... 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 *

* Available on request

Version: 1

Declaration of Performance

Certificate Number: DOP/F/FP/HV-Hollowcore/A209

The undersigned, representing the following:

FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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 product conforms: Standard: Annex ZA of BS EN 1168:2005+A3 2011
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... f_{ck} : C50/60 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)..... 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 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 manufacturer's instructions.

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

Position: Managing Director (Design Solution) Date: 05 October 2015

Version: 1



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FORTERRA
5 Grange Park Court, Roman Way
Northampton
NN4 5EA

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..... f_{ck} : C50/60 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)..... 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 index, possible complementary information on fire resistance and other NDPs see the Technical documentation

Technical documentation: Product Handbook and Technical File *

* Available on request

Version: 1