

Declaration of Performance

Certificate Number: DOP/HANUK/FP-Retaining Walls/RW 1x1

The undersigned, representing the following:

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

Confirms that:

Retaining Walls:- RW 1x1

Manufacturing Plant: **Somercotes**

13

FPC Certificate No.:1333-CPD-00138

Conforms to harmonised European Standard: BS EN 15258:2008

Category 1: 1000 x 1000 Retaining Wall Elements

Provision to which the product conforms: Standard: Annex ZA of BS EN 15258:2008

Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ kN/m}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ kN/m}^2$

Mechanical Resistance(design values):

Bending moment capacity

(of the critical section)..... 5.1 kNm

Shear capacity (of the critical section)..... 34.7 kN

Material Safety Factor Used in Calculation

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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

Technical documentation: 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: 04 March 2014



1333

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

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FPC Certificate No.:1333-CPD-00138

BS EN 15258:2008
Retaining Wall Elements
Precast element for gravity retaining wall

Product Name: RW 1x1

Category 1: Retaining Wall Elements

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ N/mm}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ N/mm}^2$

Mechanical Resistance (design values):

Bending moment capacity
(of the critical section)..... 5.1 kNm

Shear capacity (of the critical section)..... 34.7 kN

Material safety factors applied in strength calculation:

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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Declaration of Performance

Certificate Number: DOP/HANUK/FP-Retaining Walls/RW 1.5x1

The undersigned, representing the following:

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

Confirms that:

Retaining Walls:- RW 1.5x1

Manufacturing Plant: **Somercotes**

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FPC Certificate No.:1333-CPD-00138

Conforms to harmonised European Standard: BS EN 15258:2008

Category 1: 1500 x 1000 Retaining Wall Elements

Provision to which the product conforms: Standard: Annex ZA of BS EN 15258:2008
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ kN/m}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ kN/m}^2$

Mechanical Resistance(design values):

Bending moment capacity

(of the critical section)..... 9.5 kNm

Shear capacity (of the critical section)..... 43.6 kN

Material Safety Factor Used in Calculation

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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FPC Certificate No.:1333-CPD-00138

BS EN 15258:2008
Retaining Wall Elements
Precast element for gravity retaining wall

Product Name: RW 1.5x1

Category 1: Retaining Wall Elements

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ N/mm}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ N/mm}^2$

Mechanical Resistance (design values):

Bending moment capacity
(of the critical section)..... 9.5 kNm

Shear capacity (of the critical section)..... 43.6 kN

Material safety factors applied in strength calculation:

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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Declaration of Performance

Certificate Number: DOP/HANUK/FP-Retaining Walls/RW 1.75x1

The undersigned, representing the following:

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

Confirms that:

Retaining Walls:- RW 1.75x1

Manufacturing Plant: **Somercotes**

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FPC Certificate No.:1333-CPD-00138

Conforms to harmonised European Standard: BS EN 15258:2008

Category 1: 1750 x 1000 Retaining Wall Elements

Provision to which the product conforms: Standard: Annex ZA of BS EN 15258:2008
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ kN/m}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ kN/m}^2$

Mechanical Resistance(design values):

Bending moment capacity

(of the critical section)..... 21.0 kNm

Shear capacity (of the critical section)..... 91.2 kN

Material Safety Factor Used in Calculation

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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FPC Certificate No.:1333-CPD-00138

BS EN 15258:2008
Retaining Wall Elements
Precast element for gravity retaining wall

Product Name: RW 1.75x1

Category 1: Retaining Wall Elements

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ N/mm}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ N/mm}^2$

Mechanical Resistance (design values):

Bending moment capacity
(of the critical section)..... 21.0 kNm

Shear capacity (of the critical section)..... 91.2 kN

Material safety factors applied in strength calculation:

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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Declaration of Performance

Certificate Number: DOP/HANUK/FP-Retaining Walls/RW 2x1

The undersigned, representing the following:

Hanson Building Products Ltd
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SL6 4JJ

Confirms that:

Retaining Walls:- RW 2x1

Manufacturing Plant: **Somercotes**

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FPC Certificate No.:1333-CPD-00138

Conforms to harmonised European Standard: BS EN 15258:2008

Category 1: 2000 x 1000 Retaining Wall Elements

Provision to which the product conforms: Standard: Annex ZA of BS EN 15258:2008
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ kN/m}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ kN/m}^2$

Mechanical Resistance(design values):

Bending moment capacity
(of the critical section)..... 21.0 kNm

Shear capacity (of the critical section)..... 91.2 kN

Material Safety Factor Used in Calculation

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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

Technical documentation: Technical File*

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FPC Certificate No.:1333-CPD-00138

BS EN 15258:2008
Retaining Wall Elements
Precast element for gravity retaining wall

Product Name: RW 2x1

Category 1: Retaining Wall Elements

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ N/mm}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ N/mm}^2$

Mechanical Resistance (design values):

Bending moment capacity
(of the critical section)..... 21.0 kNm

Shear capacity (of the critical section)..... 91.2 kN

Material safety factors applied in strength calculation:

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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Declaration of Performance

Certificate Number: DOP/HANUK/FP-Retaining Walls/RW 2.5x1

The undersigned, representing the following:

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SL6 4JJ

Confirms that:

Retaining Walls:- RW 2.5x1

Manufacturing Plant: **Somercotes**

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FPC Certificate No.:1333-CPD-00138

Conforms to harmonised European Standard: BS EN 15258:2008

Category 1: 2500 x 1000 Retaining Wall Elements

Provision to which the product conforms: Standard: Annex ZA of BS EN 15258:2008
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ kN/m}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ kN/m}^2$

Mechanical Resistance(design values):

Bending moment capacity

(of the critical section)..... 38.0 kNm

Shear capacity (of the critical section)..... 94.0 kN

Material Safety Factor Used in Calculation

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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

Technical documentation: Technical File*

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FPC Certificate No.:1333-CPD-00138

BS EN 15258:2008
Retaining Wall Elements
Precast element for gravity retaining wall

Product Name: RW 2.5x1

Category 1: Retaining Wall Elements

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ N/mm}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ N/mm}^2$

Mechanical Resistance (design values):

Bending moment capacity
(of the critical section)..... 38.0 kNm

Shear capacity (of the critical section)..... 94.0 kN

Material safety factors applied in strength calculation:

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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Declaration of Performance

Certificate Number: DOP/HANUK/FP-Retaining Walls/RW 3x1

The undersigned, representing the following:

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

Confirms that:

Retaining Walls:- RW 3x1

Manufacturing Plant: **Somercotes**

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FPC Certificate No.:1333-CPD-00138

Conforms to harmonised European Standard: BS EN 15258:2008

Category 1: 3000 x 1000 Retaining Wall Elements

Provision to which the product conforms: Standard: Annex ZA of BS EN 15258:2008
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ kN/m}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ kN/m}^2$

Mechanical Resistance(design values):

Bending moment capacity
(of the critical section)..... 61.0 kNm

Shear capacity (of the critical section)..... 114.7 kN

Material Safety Factor Used in Calculation

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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

Technical documentation: Technical File*

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SL6 4JJ

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FPC Certificate No.:1333-CPD-00138

BS EN 15258:2008
Retaining Wall Elements
Precast element for gravity retaining wall

Product Name: RW 3x1

Category 1: Retaining Wall Elements

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ N/mm}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ N/mm}^2$

Mechanical Resistance (design values):

Bending moment capacity
(of the critical section)..... 61.0 kNm

Shear capacity (of the critical section)..... 114.7 kN

Material safety factors applied in strength calculation:

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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Declaration of Performance

Certificate Number: DOP/HANUK/FP-Retaining Walls/RW 3.75x1

The undersigned, representing the following:

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

Confirms that:

Retaining Walls:- RW 3.75x1

Manufacturing Plant: **Somercotes**

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FPC Certificate No.:1333-CPD-00138

Conforms to harmonised European Standard: BS EN 15258:2008

Category 1: 3750 x 1000 Retaining Wall Elements

Provision to which the product conforms: Standard: Annex ZA of BS EN 15258:2008
Regulation (EU) No. 305 / 2011

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ kN/m}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ kN/m}^2$

Mechanical Resistance(design values):

Bending moment capacity
(of the critical section)..... 117.0 kNm

Shear capacity (of the critical section)..... 158.2 kN

Material Safety Factor Used in Calculation

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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

Technical documentation: Technical File*

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FPC Certificate No.:1333-CPD-00138

BS EN 15258:2008
Retaining Wall Elements
Precast element for gravity retaining wall

Product Name: RW 3.75x1

Category 1: Retaining Wall Elements

Concrete:

Compressive strength..... $f_{ck} = 50.0 \text{ N/mm}^2$

Reinforcing Steel:

Ultimate tensile strength..... $f_{tk} = 650 \text{ N/mm}^2$

Tensile yield strength..... $f_{yk} = 500 \text{ N/mm}^2$

Mechanical Resistance (design values):

Bending moment capacity
(of the critical section)..... 117.0 kNm

Shear capacity (of the critical section)..... 158.2 kN

Material safety factors applied in strength calculation:

For concrete..... $\gamma_c = 1.50$

For steel..... $\gamma_s = 1.15$

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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