



Declaration of Performance no. 0019

AS PER ARTS. 4, 6, 7 AND ANNEX III TO REG. (UE) 9-3-2011, No. 305/2011

MOD.CL.DDP – Rev. 00

Date 06/05/13

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1. Univocal product-type identification code: **HELYOS R/1 350**
2. Type, lot, series no. or any other element that enables the construction product to be identified pursuant to article 11, paragraph 4: **HELYOS R/1**
3. Intended use(s) of the construction product according to the relative harmonised technical specification, as stated by the manufacturer: **Heat emitting radiators designed for permanent installation in heating systems of residential buildings, fed from a remote source with hot water or steam at a temperature < 120 °C. (EN 442-1 December 2014, EN 442-2 December 2014)**
4. Name, registered trade name or registered trademark and address of the manufacturer pursuant to article 11, paragraph 5: **Radiatori 2000 S.p.a. – Via Francesca, 54/A – 60, 24040 – Ciserano (BG) - ITALY**
5. If applicable, name and address of mandatary whose mandate includes the assignments as per article 12, paragraph 2: **N.A.**
6. System(s) for the assessment and verification of constancy of performance of the construction product, as per annex V: **system 3.**
7. In a declaration of performance concerning a construction product that comes under the scope of a harmonised standard:

Notified Testing Laboratory: Politecnico di Milano – Energy Department (Notified body number: 1695)

(name and identification number of notified body, if applicable)

has performed **type tests (standard UNI EN 442-1)** according to system **3.**
(description of third party assignments as per annex V)

and has issued:

- **Determination of the thermal output of a heating body (Test report ENE/MRT.RAP.14366 of 26/08/14)**
 - **Pressure tightness tests (Test report ENE/MRT.RAP.14366/P of 26/08/14)**
 - **Adherence test and Corrosion test in salt mist. (Test report ENE/MRT.RAP.14366/V of 26/08/14)**
- (constancy of performance certificate, plant production control conformity certificate, test/design reports – as applicable)

.....
(name and identification number of organisation notified, if applicable)

.....
(description of third party assignments as per annex V)

and has issued:

.....
(constancy of performance certificate, plant production control conformity certificate, test/design reports – as applicable)



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8. In a declaration of performance concerning a construction product for which a European technical assessment has been released:

N.A.

(name and identification number of technical assessment body, if applicable)

has released

.....
(reference number of European technical assessment)

based on

.....
(reference number of European assessment document)

performed according to system
(description of third party assignments as per annex V)

and has issued

.....
(constancy of performance certificate, plant production control conformity certificate, test/design reports – as applicable)

9. Performance declared

Notes to table:

1. Column 1 contains the list of the basic properties as defined in the harmonised technical specifications for the use(s) specified in § 3 above;
2. For each property listed in column 1 and conforming to the requirements as per article 6, this column gives the performance declared, expressed in terms of level, class, or through a description, in relation to the corresponding basic properties. If no performance has been declared, the column shows “NPD” (No Performance Determined):
3. For each basic property listed in column 1, column 3 gives:
 - a. A reference, with relative date, to the corresponding harmonised standard, and, if applicable, the reference number of the specific technical documentation, or that of the appropriate technical documentation used;

or
 - b. A reference, with relative date, to the corresponding European assessment document, if available, and the reference number of the European technical assessment used;



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| Basic properties (see note 1) | Performance (see note 2) | Harmonised technical spec. (see note 3) |
|---|--|--|
| Reaction to fire | A1 | Tests on organic part of any paint or surface treatment substance to verify whether it is <1 % by mass. (Clause 5.2, standard EN 442-1:2014) |
| Release of hazardous substances | None | Clause 5.3, standard EN 442-1:2014 |
| Surface temperature | 120° C maximum and corresponding to water supply temperature | EN 442-1:2014 |
| Maximum operating pressure | 16 bar | EN 442-1:2014 |
| Pressure tightness (leak test) | 20,8 bar | Clause 5.4, standard EN 442-1:2014 |
| Pressure tightness (resistance test) | 27 bar | Clause 5.6, standard EN 442-1:2014 |
| Rated thermal output ΔT 50 K | 86,1 Watt/element | Clause 5.8, standard EN 442-1:2014 |
| Rated thermal output ΔT 30 K | 44,9 Watt/element | Clause 5.8, standard EN 442-1:2014 |
| Thermal power in different operating conditions (Characteristic equation) | $\Phi = K_m \times \Delta T^n$ | Clause 5.8, standard EN 442-1:2014 |
| Coefficient K_m | 0,581 | Clause 5.8, standard EN 442-1:2014 |
| Coefficient n | 1,277 | Clause 5.8, standard EN 442-1:2014 |
| Durability (impact resistance lightweight) | Level 0 | Clause 5.9, standard EN 442-1:2014 |
| Durability (corrosion test) | No corrosions after 200 h in salt mist | Clause 5.9, standard EN 442-1:2014 |

If a specific technical document has been used, pursuant to art. 37 or art. 38, the requirements met by the product:

10. The performance of the product as per §§ 1 & 2 above conforms to the performance declared as per § 9.

This declaration of performance is released under the sole responsibility of the manufacturer as per § 4 above.

Signed in the name and on behalf of:

ARIANNA SCARAVAGGI

Managing Director
(name and functions)

Ciserano (BG – Italy) 21/07/2015
(place and date of issue)

.....
(signature)



Declaration of Performance no. I500

AS PER ARTS. 4, 6, 7 AND ANNEX III TO REG. (UE) 9-3-2011, No. 305/2011

MOD.CL.DDP – Rev. 00

Date 06/05/13

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1. Univocal product-type identification code: **HELYOS R/1 500**
2. Type, lot, series no. or any other element that enables the construction product to be identified pursuant to article 11, paragraph 4: **HELYOS R/1**
3. Intended use(s) of the construction product according to the relative harmonised technical specification, as stated by the manufacturer: **Heat emitting radiators designed for permanent installation in heating systems of residential buildings, fed from a remote source with hot water or steam at a temperature < 120 °C. (EN 442-1 December 2014, EN 442-2 December 2014)**
4. Name, registered trade name or registered trademark and address of the manufacturer pursuant to article 11, paragraph 5: **Radiatori 2000 S.p.a. – Via Francesca, 54/A – 60, 24040 – Ciserano (BG) - ITALY**
5. If applicable, name and address of mandatary whose mandate includes the assignments as per article 12, paragraph 2: **N.A.**
6. System(s) for the assessment and verification of constancy of performance of the construction product, as per annex V: **system 3.**
7. In a declaration of performance concerning a construction product that comes under the scope of a harmonised standard:

Notified Testing Laboratory: Politecnico di Milano – Energy Department (Notified body number: 1695)

(name and identification number of notified body, if applicable)

has performed **type tests (standard UNI EN 442-1)** according to system **3.**
(description of third party assignments as per annex V)

and has issued:

- **Determination of the thermal output of a heating body (Test report ENE/MRT.RAP.10181 of 10/06/10)**

- **Pressure tightness tests (Test report ENE/MRT.RAP.10181/P of 10/06/10)**

(constancy of performance certificate, plant production control conformity certificate, test/design reports – as applicable)

Notified Testing Laboratory: AQM S.r.l. (LAB No. 0095)

(name and identification number of organisation notified, if applicable)

has performed **type tests (standard UNI EN 442-1)** according to system **3.**
(description of third party assignments as per annex V)

and has issued:

- **Adherence test and Corrosion test in salt mist. (Test report 2010-3092-8PC of 04/11/10)**

(constancy of performance certificate, plant production control conformity certificate, test/design reports – as applicable)



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8. In a declaration of performance concerning a construction product for which a European technical assessment has been released:

N.A.

(name and identification number of technical assessment body, if applicable)

has released

.....
(reference number of European technical assessment)

based on

.....
(reference number of European assessment document)

performed according to system
(description of third party assignments as per annex V)

and has issued

.....
(constancy of performance certificate, plant production control conformity certificate, test/design reports – as applicable)

9. Performance declared

Notes to table:

1. Column 1 contains the list of the basic properties as defined in the harmonised technical specifications for the use(s) specified in § 3 above;
2. For each property listed in column 1 and conforming to the requirements as per article 6, this column gives the performance declared, expressed in terms of level, class, or through a description, in relation to the corresponding basic properties. If no performance has been declared, the column shows “NPD” (No Performance Determined):
3. For each basic property listed in column 1, column 3 gives:
 - a. A reference, with relative date, to the corresponding harmonised standard, and, if applicable, the reference number of the specific technical documentation, or that of the appropriate technical documentation used;

or
 - b. A reference, with relative date, to the corresponding European assessment document, if available, and the reference number of the European technical assessment used;



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| Basic properties (see note 1) | Performance (see note 2) | Harmonised technical spec. (see note 3) |
|---|--|--|
| Reaction to fire | A1 | Tests on organic part of any paint or surface treatment substance to verify whether it is <1 % by mass. (Clause 5.2, standard EN 442-1:2014) |
| Release of hazardous substances | None | Clause 5.3, standard EN 442-1:2014 |
| Surface temperature | 120° C maximum and corresponding to water supply temperature | EN 442-1:2014 |
| Maximum operating pressure | 16 bar | EN 442-1:2014 |
| Pressure tightness (leak test) | 20,8 bar | Clause 5.4, standard EN 442-1:2014 |
| Pressure tightness (resistance test) | 27 bar | Clause 5.6, standard EN 442-1:2014 |
| Rated thermal output ΔT 50 K | 112,8 Watt/element | Clause 5.8, standard EN 442-1:2014 |
| Rated thermal output ΔT 30 K | 57,9 Watt/element | Clause 5.8, standard EN 442-1:2014 |
| Thermal power in different operating conditions (Characteristic equation) | $\Phi = K_m \times \Delta T^n$ | Clause 5.8, standard EN 442-1:2014 |
| Coefficient K_m | 0,687 | Clause 5.8, standard EN 442-1:2014 |
| Coefficient n | 1,303 | Clause 5.8, standard EN 442-1:2014 |
| Durability (impact resistance lightweight) | Level 0 | Clause 5.9, standard EN 442-1:2014 |
| Durability (corrosion test) | No corrosions after 100 h in salt mist | Clause 5.9, standard EN 442-1:2014 |

If a specific technical document has been used, pursuant to art. 37 or art. 38, the requirements met by the product:

10. The performance of the product as per §§ 1 & 2 above conforms to the performance declared as per § 9.

This declaration of performance is released under the sole responsibility of the manufacturer as per § 4 above.

Signed in the name and on behalf of:

ARIANNA SCARAVAGGI

Managing Director
(name and functions)

Ciserano (BG – Italy) 21/07/2015
(place and date of issue)

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(signature)