

Date received: 05/02/16

Date of issue: 03/03/16

Report consists of 9 test reports.

Defects before testing: None

Sample name: K12 SYSTEM DROP DOWN WITH KIMANA HINGES

FERRAMENTA LIVENZA S.R.L.
VIALE L. ZANUSSI 21
33070 MARON DI BRUGNERA (PN)
ITALIA

SAMPLE N° 209000

Overall dimensions: 600 x 320 x 350 (h) mm

List performed tests:

1. 1st Vertical downwards static load test EN 15828:2010, clause 6.3.3
2. 1st Horizontal sideways static load test EN 15828:2010, clause 6.3.4
3. Durability test EN 15828:2010, clause 6.3.6
4. 2nd Vertical downwards static load test EN 15828:2010, clause 6.3.8
5. 2nd Horizontal sideways static load test EN 15828:2010, clause. 6.3.9
6. Slam shut test EN 15828:2010, clause 6.3.11
7. Vertical downwards static overload test EN 15828:2010, clause 6.2.1
8. Horizontal sideways static overload test EN 15828:2010, clause 6.2.2
9. Overload slam shut/open test EN 15828:2010, clause 6.2.3



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Managing Director
Dr. Andrea Giavon

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SAMPLE N° 209000

Date of issue: 03/03/16
Sample weight: Not determined
Overall dimensions: 600 x 320 x 350 (h) mm
Sample name: K12 SYSTEM DROP DOWN WITH KIMANA HINGES



Unit tested

TEST REPORT

209000 / 1

Date received: 05/02/16
Date of test: 15/02/16
Date of issue: 03/03/16



FERRAMENTA LIVENZA S.R.L.
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ITALIA

Sample name: K12 SYSTEM DROP DOWN WITH KIMANA HINGES

1st Vertical downwards static load test EN 15828:2010, clause 6.3.3

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Test results:

Vertical force (N)	Load application point	Number of cycles	Time of load application (s)	Remarks
125	Right corner	5	13	No defects *
125	Left corner	5	13	No defects *

Note:

- The test has been carried out according to Table B.3 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.3.3

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TEST REPORT

209000 / 2

Date received: 05/02/16
Date of test: 15/02/16
Date of issue: 03/03/16



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FERRAMENTA LIVENZA S.R.L.
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33070 MARON DI BRUGNERA (PN)
ITALIA

1st Horizontal sideways static load test EN 15828:2010, clause 6.3.4

Clause 6.3.4.2 Bottom hinged flaps

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Test results:

Horizontal force (N)	Load application point	Number of cycles	Time of load application (s)	Remarks
100	Right side	5	13	No defects *
100	Left side	5	13	No defects *

Note:

- The test has been carried out according to Table B.3 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.3.4.2

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TEST REPORT

209000 / 3

Date received: 05/02/16
Date of test: 15/02/16
Date of issue: 03/03/16



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FERRAMENTA LIVENZA S.R.L.
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Durability test EN 15828:2010, clause 6.3.6

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Flap width (W): 600 mm

Maximum allowable flap sagging: 3 mm (0,5% di W)

Maximum allowable opening/closing forces: ≤ 50 N for flaps with mass ≤ 10 kg
 ≤ 70 N for flaps with mass > 10 kg

Test results:

Number of cycles	Test rate (cycles/minute)	Opening force (N)		Closing force (N)		Flap sagging (mm)	Remarks
		Initial	Final	Initial	Final		
20.000	3	2	3	15	14	0	No defects *

Note:

- The test has been carried out according to Table B.3 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.3.2.2, 6.3.6, 6.3.7

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TEST REPORT

209000 / 4

Date received: 05/02/16
Date of test: 22/02/16
Date of issue: 03/03/16



Sample name: K12 SYSTEM DROP DOWN WITH KIMANA HINGES

FERRAMENTA LIVENZA S.R.L.
VIALE L. ZANUSSI 21
33070 MARON DI BRUGNERA (PN)
ITALIA

2nd Vertical downwards static load test EN 15828:2010, clause 6.3.8

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

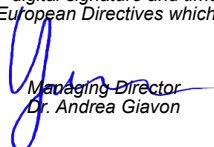
Test results:

Vertical force (N)	Load application point	Number of cycles	Time of load application (s)	Remarks
125	Right corner	5	13	No defects *
125	Left corner	5	13	No defects *

Note:

- The test has been carried out according to Table B.3 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.3.8

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TEST REPORT

209000 / 5

Date received: 05/02/16
Date of test: 22/02/16
Date of issue: 03/03/16



Sample name: K12 SYSTEM DROP DOWN WITH KIMANA HINGES

FERRAMENTA LIVENZA S.R.L.
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2nd Horizontal sideways static load test EN 15828:2010, clause. 6.3.9

Clause 6.3.9.2 Bottom hinged flaps

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Test results:

Horizontal force (N)	Load application point	Number of cycles	Time of load application (s)	Remarks
100	Right side	5	13	No defects *
100	Left side	5	13	No defects *

Note:

- The test has been carried out according to Table B.3 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.3.9.2

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TEST REPORT

209000 / 6

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FERRAMENTA LIVENZA S.R.L.
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ITALIA

Slam shut test EN 15828:2010, clause 6.3.11

Clause 6.3.11.2 Bottom hinged flaps

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Test results:

Minimum mass to start moving the flap: m1 (kg)	Test mass: m2 (kg)	Number of cycles	Remarks
0,3	1	10	No defects *

Note:

- The test has been carried out according to Table B.3 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.3.11.2

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TEST REPORT

209000 / 7

Date received: 05/02/16
Date of test: 23/02/16
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FERRAMENTA LIVENZA S.R.L.
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33070 MARON DI BRUGNERA (PN)
ITALIA

Vertical downwards static overload test EN 15828:2010, clause 6.2.1

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Test results:

Vertical force (N)	Load application point	Number of cycles	Time of load application (s)	Remarks
250	Right corner	10	13	No defects *
250	Left corner	5	13	No defects *

Note:

- The test has been carried out according to Table B.2 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.2.1

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TEST REPORT

209000 / 8

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ITALIA

Horizontal sideways static overload test EN 15828:2010, clause 6.2.2

Clause 6.2.2.2 Bottom hinged flaps

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Test results:

Horizontal force (N)	Load application point	Number of cycles	Time of load application (s)	Remarks
150	Right side	5	13	No defects *
150	Left side	5	13	No defects *

Note:

- The test has been carried out according to Table B.2 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.2.2.2

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TEST REPORT

209000 / 9

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ITALIA

Overload slam shut/open test EN 15828:2010, clause 6.2.3

Clause 6.2.3.2 Bottom hinged flaps - Slam open test

Type of flap: bottom hinged flap, with 2 horizontal axis hinges and 2 pistons
Flap dimensions: 600 x 19 x 350 (height) mm
Flap material: wood based panel
Flap mass: 2,3 kg

Test results:

Test mass (kg)	Number of cycles	Remarks
3	10	No defects *

Note:

- The test has been carried out according to Table B.2 (annex B) of EN 15828:2010, test level 3
- * Test results comply with requirements of EN 15828:2010, clause 6.2.3.2

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