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Autorizzazioni:
Ministero delle Infrastrutture e dei Trasporti per legge 1086 – Ministero dell'Università e della Ricerca Scientifica e Tecnologica per Legge 46/82 - Ministero delle Attività Produttive – Ministero dell'Interno per prove reazione al fuoco, estintori portatili e carrellati, evacuatori di fumo e calore - Ministero della Salute per analisi in BPL e prove I.S.P.E.S.L. – Regione Lombardia per analisi acque potabili e non - Ministère de l'Industrie, de la Poste et des Télécommunications per pentole a pressione e verifiche di sorveglianza alla produzione

Certificazione di prodotto – Controlli non distruttivi – Prove tecnologiche – Termografia – Prove termotecniche – Rilievi estensimetrici – Prove calcestruzzi – Geotecnica
Analisi chimica – Agroalimentare – Cosmesi – Metallografia – Microscopia elettronica – Sicurezza – Ecologia – Controllo qualità – Ricerche – Consulenze

English translation of the original italian test report
(issued on 17/03/2008 – request of 13/03/2008)

Rho, 13 March 2008

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TEST REPORT No. 851-2008
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NPA 359/08

SUBJECT: Tests on connecting flue pipe.

Order no. 024/08/cl dated 26/02/2008 – DDT no. 48 dated 27/02/2008

On 27 February 2008 our laboratory received no. 1 enbloc non-rectilinear connecting flue pipe, length 2700 mm, in composed material (glass fibers and particolar thermosetting resins), identified **"HT 1000 DN250"**, to be submitted to:

- thermal performance test at 1000°C according to standard UNI EN 1856-2:2006 pt. 6.2.1 and standard UNI EN 1859:2007 pt. 4.5.3.2;
- gas tightness test, according to standard UNI EN 1856-2:2006 pt. 6.3 and standard UNI EN 1859:2007 pt. 4.4 for negative pressure chimneys.

Test methods and results are reported in the following page.

Test performed in the period from 10 to 13/03/2008.

The present test report refers only to the tested sample and it can be reproduced only in its full version.

Laboratory technician	Technical Manager

TEST METHODS AND RESULTS

GAS TIGHTNESS TEST (pt. 6.3 - UNI EN 1856-2:2006)

Test performed according to method reported on standard UNI EN 1859:2007 pt. 4.4., increasing airstream until reaching 40 Pa pressure into the flue pipe.
Test has been performed after the thermal performance test.

	pressure (Pa)	*leakage rate (L/s*m^2)*	*limit (L/s*m^2)*
after test at 1000 °C	40	0,58	<2,0

Relating to gas tightness test, flue pipe type HT 1000 DN250 has been classified in pressure class N1.

THERMAL PERFORMANCE TEST (pt 6.2.1 – UNI EN 1856-2:2006)

TEST AT 1000°C

Test has been performed with gas temperature of 1000 °C according to thermal shock method reported on standard UNI EN 1859:2007 pt. 4.5.3.2

The following temperatures has been recorded, expressed in °C

Room T area A	35,9
Room T area B	23,7
Hot gas T at 50 mm before the chimney entrance	1003,7
Hot gas T at 1 m above the chimney entrance	682
Hot gas T at 2 m above the chimney entrance	604
External wall T at 1 m above the chimney entrance	420,1
External wall T at 2 m above the chimney entrance	331,2
Room T at 1 m above the chimney entrance	29,5
Room T at 2 m above the chimney entrance	21,8
Room T at 3 m above the chimney entrance	17,9

NOTE: reported values are the maximum temperature reached in all the position required and identified in standard UNI EN 1859:2007.