Building Regulations Update

by Eamonn Smyth 9-3-2016
- **Part A** – Structure (2012)
- **Part B** - Fire Safety (201X)
- **Part C** - Site Preparation and Moisture Resistance (201X)
- **Part D** – Materials & Workmanship (2013)
- **Part E** – Sound (2014)
- **Part F** - Ventilation (2009)
- **Part G** – Hygiene (2011)
- **Part K** - Stairways, Ladders, Ramps & Guards (2014)
- **Part L** - Conservation of Fuel & Energy (201X)
Effectively “New” Building Regulations
Protecting the Health & Safety of people in or around buildings

Parts B, C and L under review - TBP 2016
Part B - Fire Safety

• Full Review of Part B/ TGD B underway

• Analysis of 2012 pre-review consultation (44 submissions) complete

• Revised TDG B being drafted

• 2 Volumes proposed - Volume 1 Dwelling houses, Volume 2 Other buildings

• Public consultation early 2016
Part C - Site Preparation and Resistance to Moisture

• Review of SR 21: 2014 Published but currently being amended to provide for “Permeable” hardcore.

• Future development of “Code of Practice for the procurement and use of unbound granular fill (hardcore) material for use under concrete floors” – IS 888 2016

• National Radon Strategy – Published February 2014

• Review of TGD C - commence 2016
Replacing hardcore
SR21
New Grading's

4 types of “Hardcore”
T3    Blinding (4)
T2    Permeable (5)
T1    Structural (6)
T0    Structural (7)

When required, T0 Struc may be used from formation level to 900 mm below the radon barrier/ DPM

Where a gas permeable layer is not required T1 Struc material alone should be used beneath the blinding layer.

Where a gas permeable layer is required and the occupancy loading is residential loading, T2 Perm material alone may be used beneath the blinding layer, subject to a depth of 900 mm (max) below the radon barrier/ DPM.
Radon Training Courses

- Radon Remediation Course in May 2016
  - For LA housing personnel
  - Government Bodies responsible for public buildings ie schools, hospitals, offices, public buildings, etc

Radon Prevention course finalised.

- For all site operatives
- Site foremen

Will be rolled out country wide.
TGD H amendment

- TGD H amended to reference SR66
- References to National Annexes removed
- Public consultation complete
- 11 public comments
- To be published in Q2 2016
• This specifies the design capacity for a dwelling based on the number of bedrooms with the minimum being a two bedroom equating to a population equivalent (p.e.) of 4 and every additional bedroom irrespective of size being an additional 1 p.e.

• Where a prefabricated tertiary treatment system is used for a specific purpose it may not reduce the pollutants such as micro-organisms to the appropriate level and a polishing filter may still be required.
Part L – Conservation of Fuel & Energy - Buildings other than Dwellings

Buildings other than Dwellings

• Review of TGD L 2008 Buildings other than Dwellings to Cost Optimal Level in 1H 2016 for publication in 2016

Review to include:
• Stakeholder Review
• Public Consultation 1H 2016
• Regulatory Impact Assessment
• NEAP Review 1st Half 2016

• Improvement anticipated to be 40 to 60% (based on cost optimal)
Buildings other than Dwellings

- Review of TGD L 2008 Buildings other than Dwellings to Cost Optimal Level for public consultation 1H 2016 for publication end 2016

- Improvement anticipated to be 40 to 60% (based on cost optimal)

<table>
<thead>
<tr>
<th>Timeline</th>
<th>2005</th>
<th>2016</th>
<th>2018</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part L¹</td>
<td>% Improvement</td>
<td>Baseline</td>
<td>40%-60%²</td>
<td>Nearly Zero Energy-Public Sector</td>
</tr>
</tbody>
</table>

¹ Energy and CO₂ Performance is calculated using Non domestic Energy Assessment Performance (NEAP) Software to EN 13790
² Final value to be informed by Cost Optimal calculations and robustness and spread of solutions.
Part L - Dwellings

- **DEAP** calculation methodology refined in line with EU Ecodesign standards to give increased renewables credit to **heat pumps**. Heat pumps should now comply in all dwellings without the need for additional renewables.
  

- **Primary Energy Factor (PEF)** changed to a 3 year forward look updated annually to take account of grid decarbonisation. For Part L compliance purposes either the PEF that was valid at time of planning or at time of assessment may be used.
  
  [http://www.seai.ie/Your_Building/BER/BER_FAQ/BER_Results/?type=1&cat=ALL&path=ALL&query=electricity%20factors](http://www.seai.ie/Your_Building/BER/BER_FAQ/BER_Results/?type=1&cat=ALL&path=ALL&query=electricity%20factors)
Part E 2014 – Sound
The key objectives of the Part E review were to:

- improve standards of sound insulation between dwellings;
- improve compliance with the Regulations;
- expand the guidance of the TGD;
- identify changes in standards and practice.
Part E – The Requirement

Sound. E1 Each wall and floor separating a dwelling from -
(a) another dwelling or dwellings,
(b) other parts of the same building,
(c) adjoining buildings,
shall be designed and constructed in such a way so as to provide reasonable resistance to sound.

Reverberation. E2 The common internal part of a building which provides direct access to a dwelling shall be designed and constructed so as to limit reverberation in the common part to a reasonable level

Definitions for this Part. E3 In this Part –

“Reverberation” means the persistence of sound in a space after a sound source has been stopped.
Extended Scope

All walls & floors that separate any part of a dwelling from:

- adjoining dwelling(s);
- adjoining building(s);
- other parts of the same building*.

Sound. E1 Each wall and floor separating a dwelling from -

(a) another dwelling or dwellings,
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“Reverberation” means the persistence of sound in a space after a sound source has been stopped.

Regulation E2 aims to control the level of unwanted sound in the common areas of apartment blocks.
Article 13 of the Building Regulations 1997 (Principal Regulations) is amended to require Part E to apply to an existing building or part of a building which undergoes a material change of use to a dwelling.
Measures to improve sound insulation

- **Minimum** performance levels prescribed for airborne & impact sound for separating constructions.

- **Must be achieved** for each separating construction tested.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Sound performance levels (Par. 1.1.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separating construction</td>
<td>Airborne sound insulation</td>
</tr>
<tr>
<td>Walls</td>
<td>(D_{nT,w} ) dB</td>
</tr>
<tr>
<td>Floors (including stairs with a separating function)</td>
<td>53 (min)</td>
</tr>
</tbody>
</table>

**NOTE:** For works to protected structures, refer to paragraph 1.1.3.
For dwellings, where the relevant walls and floors are -

- designed and constructed using acceptable constructions in accordance with Sections 3 and 4, and

- demonstrated by testing in accordance with Section 2 to meet the performance levels of Table 1,

this will, *prima facie*, indicate compliance with the requirement of Regulation E1.
Measures to improve sound insulation

(i) Tied junction
Vertical spacing of ties 300mm c/c (max)
Measures to improve compliance

- Mandatory sound testing on a proportion of attached dwellings.

- Main stimulus to the general achievement of the minimum performance requirements through the adoption of improved quality control procedures on site.

- Strong emphasis on the competency requirements of sound insulation tester.
“To ensure a proper standard of testing, it is essential that persons are competent in the measurement of sound insulation in buildings to I.S. EN ISO 140 series, possess sufficient training, experience and knowledge appropriate to the nature of the work he or she is required to perform having particular regard to the size and complexity of such works.”

“Sound insulation tests carried out by a person certified by an independent third party to carry out this work offers a way of ensuring that such certification can be relied upon.”

Sound Insulation Testing Register (Ireland)
www.soundtestingireland.com
Part K 2014

Stairways, Ladders, Ramps & Guards
The key objectives of the Part K review were:

- to maintain levels of safety to protect people in and around buildings;

- to update the guidance with reference to the latest standards;

- to make reference to the Structural Eurocodes.
<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stairways, ladders and ramps.</td>
<td>Stairways, ladders and ramps shall be such as to afford safe passage for the users of a building.</td>
</tr>
<tr>
<td>Protection from falling.</td>
<td>In a building the sides of every floor, balcony and every part of a roof to which people normally have access, and sunken areas connected to a building, shall be guarded to protect users from the risk of falling.</td>
</tr>
<tr>
<td>Vehicle ramps, floors and roofs.</td>
<td>In a building, the sides of every vehicle ramp and every floor and roof to which vehicles have access shall be guarded against the risk of vehicles falling therefrom.</td>
</tr>
<tr>
<td>Application of this Part.</td>
<td>The requirements of this Part apply to stairways, ladders and ramps which form part of the structure of a building.</td>
</tr>
</tbody>
</table>
Scope of Part K (relevant to stairs)

Access only: M & K
Egress only: B & K
Both: M, B & K

Approach route (s): M
Circulation Route(s): M

Escape/ Circulation:
B & K
Ambulant disabled only: M & K
Combination of above: M, B & K

K1 applies to the design and construction of stairways, ladders and ramps in a building.

K1 DOES NOT apply to steps or access routes outside a building other than where steps are immediately outside the external door of a building.
• In 2003, there were over twice as many deaths due to falls on or from steps and stairs as there were due to exposure to smoke, fire and flames in England and Wales.

• Nearly 20% of the non-fatal domestic accidents on stairs happen to children less than 4 years of age, and

• 70% of the fatal accidents occur to adults over 65 years of age.
Slips, Trips & Falls (HSA)

**STF’s on Workplace Stairs, Step(s) in 2011**
- Slip, 60
- Mistep, 22
- Trip, 15
- Fall, 23
- Other, 1

**STF’s on Workplace Ramps, Slopes in 2011**
- Slip, 9
- Trip, Fall, Mistep, 6
TGD K 2014

Table 1 Rise, going and pitch

<table>
<thead>
<tr>
<th></th>
<th>Rise (R) (mm)</th>
<th>Going (G) (mm)</th>
<th>Pitch (degrees)⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Min.</td>
<td>Optimum</td>
</tr>
<tr>
<td>Private¹</td>
<td>175</td>
<td>220</td>
<td></td>
</tr>
<tr>
<td>Semi-public²</td>
<td>165</td>
<td>190</td>
<td></td>
</tr>
<tr>
<td>Public³</td>
<td>150</td>
<td>180</td>
<td></td>
</tr>
</tbody>
</table>

Note:
1. Private stairs means stairs used by a limited number of people who are generally very familiar with the stairs, e.g. the internal stairs in a dwelling.
2. Semi-public stairs means stairs used by larger numbers of people, some of whom may be unfamiliar with the stairs, e.g. in factories, offices, shops, common stairs serving more than one dwelling or apartment.
3. Public stairs means stairs used by large numbers of people at one time, e.g. in places of public assembly.
4. To ensure that the steps are suitably proportioned and comfortable to use, the rise and the going should be considered together. For comfortable gait the sum of twice the rise plus the going (2R+G) should be between 550 mm and 700 mm with an optimum of 600 mm.
5. For stairs, which are intended to satisfy the needs of ambulant disabled people see Technical Guidance Document M – Access and Use.

Specifies Minimum standards and continues to specify Optimum values.
**Supplementary guidance**

<table>
<thead>
<tr>
<th>Building Regulations Requirements</th>
<th>Part K Stairways, Ladders, Ramps and Guards</th>
<th>Part M Access and Use</th>
<th>Part B Fire Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1 Stairways, ladders and ramps</td>
<td>M1 Adequate provision shall be made for people to access and use a building, its facilities and its environs.</td>
<td>B1 Means of escape in case of fire</td>
<td>B5 Access and facilities for the fire service.</td>
</tr>
<tr>
<td>shall be such as to afford safe passage for the users of a building.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of Building Regulations relating to the provision of internal stairs.</td>
<td>ALL internal stairs (as required) must comply with Part K.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one set of stairs suitable for ambulant disabled people should be provided to access all floors above or below entrance level.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Technical Guidance Documents

<table>
<thead>
<tr>
<th>Criteria</th>
<th>TGD K 2014</th>
<th>TGD M 2010</th>
<th>TGD B 2006</th>
</tr>
</thead>
</table>
| 1. Stairs width (For landing width see Note f below) | New buildings Section 1 | Existing buildings Section 2 | Refer to 1.3.4 and 1.3.5 for determining widths of stairways (but not less than 800 mm)
Circulation/Egress/Both
Ambulant disabled only
Any combination of above |
| As required by TGD B or TGD M (if stairs suitable for ambulant disabled people) | 1200 (min) between walls, upstands, strings and 1000 (min) between handrails. | As wide as possible but not less than 1000 mm between handrails. | B (See across)
M (See across)
The wider of B and M |
| 2. Max rise of flight between level landings | 16 risers | 1800 (max) | 16 risers
Ambulant disabled only
Any combination of above |
| Opt Max | 165 190 | 150 (min) to 180 (max) | 1800 (max)
Ambulant disabled only
Any combination of above |
| 3. Rise (R) | Semi Public 165 190 | No additional requirements | No additional requirements |
| Public 150 180 | | | |

**Supplementary guidance on the design of stairs to help achieve compliance with the Building Regulations**

Designer decision required below on function of stairs under consideration.
Guarding design

- References to withdrawn standards e.g. BS 6399-1 removed and explicit reference to Eurocodes (EN 1991-1-1 for guarding design)
Window with climbable cill and thus no guarding to window.
Prevention of falls from windows

- Guidance on prevention of falls from windows in dwellings (having particular regard to children under five years old)

- **Note:** Separate provision from guarding
Building Regulations Part J
Heat Producing Appliances
Reasons for Revision

- New systems on the Market.
- New References due to EN standards.
- Last revised in 1997.
- Introduction of Carbon Monoxide requirement
- Introduction of Information req.
- Introduction of Environment req.
<p>| J1 | Air supply. | A heat producing appliance shall be so installed that there is an adequate supply of air to it for combustion, to prevent overheating and for the efficient working of any flue pipe or chimney serving the appliance. |
| J2(a) | Discharge of products of combustion. | A heat producing appliance shall have adequate provision for the discharge of the products of combustion to the outside air. |
| J2(b) | Warning of release of Carbon Monoxide. | Reasonable provision shall be made to avoid danger to the health and safety of the occupants of a dwelling caused by the release of carbon monoxide from heat producing appliances. |
| J3 | Protection of building. | A heat producing appliance and any flue pipe shall be so designed and installed, and any fireplace and any chimney shall be so designed and constructed, as to reduce to a reasonable level the risk of the building catching fire in consequence of its use. |
| J4(a) | Provision of information. | Where a hearth, fireplace, flue or chimney is provided or extended, a durable notice containing information on the type of heat producing appliance which can be safely served by the hearth, fireplace, flue or chimney shall be affixed in a suitable place in the building. |
| J4(b) | | Information on the system installed and any continuing maintenance required, to ensure its safe and effective operation and avoid risk to health, shall be provided to the owner. |
| J5 | Fuel storage system – protection against spread of fire to the system. | A fixed fuel storage system, which serves a heat producing appliance, and any associated pipework carrying fuel to that appliance, shall be so located as to reduce to a reasonable level the risk of fuel ignition due to fire spreading from the building being served or an adjacent building or premises. |
| J6 | Liquid fuel storage system – protection against pollution by the system. | A fixed liquid fuel storage tank, which serves a heat producing appliance, and the pipes connecting it to that appliance shall be so located, constructed and protected as to reduce to a reasonable level the risk of the fuel escaping and causing pollution. |
| J7 | Definitions. | In this Part, &quot;heat producing appliance&quot; means a fixed appliance (including a cooker and an open fire) which is designed to burn solid fuel, oil, bio-fuel or gas and includes an incinerator. |</p>
<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge of products of combustion.</td>
<td>J2(a)</td>
<td>A heat producing appliance shall have adequate provision for the discharge of the products of combustion to the outside air.</td>
</tr>
<tr>
<td>Warning of release of Carbon Monoxide.</td>
<td>J2(b)</td>
<td>Reasonable provision shall be made to avoid danger to the health and safety of the occupants of a dwelling caused by the release of carbon monoxide from heat producing appliances.</td>
</tr>
<tr>
<td>Provision of information.</td>
<td>J4(a)</td>
<td>Where a hearth, fireplace, flue or chimney is provided or extended, a durable notice containing information on the type of heat producing appliance which can be safely served by the hearth, fireplace, flue or chimney shall be affixed in a suitable place in the building.</td>
</tr>
<tr>
<td></td>
<td>J4(b)</td>
<td>Information on the system installed and any continuing maintenance required, to ensure its safe and effective operation and avoid risk to health, shall be provided to the owner.</td>
</tr>
<tr>
<td>Liquid fuel storage system – protection against pollution by the system.</td>
<td>J6</td>
<td>A fixed liquid fuel storage tank, which serves a heat producing appliance, and the pipes connecting it to that appliance shall be so located, constructed and protected as to reduce to a reasonable level the risk of the fuel escaping and causing pollution.</td>
</tr>
</tbody>
</table>
What do the Regulations do?

These Regulations amend Part J (Heating Producing Appliances) of the Second Schedule to the Building Regulations 1997 (S.I. No. 497 of 1997) in order to:

1. provide for the detection and warning of carbon monoxide in dwellings;
2. require a notice giving information on the type of appliance suitable for the hearth, fireplace, flue or chimney;
3. require information to be provided to the owner on the system installed and any continuing maintenance required to ensure its safe and effective operation and avoid risk to health; and
4. protect against pollution from liquid fuel storage.
Part J - Heat Producing Appliances

The Technical Guidance Document relating to Part J has taken the opportunity

- to update the standards
- incorporate guidance on the storage of other fuels as well as oil.
- These Regulations apply to works and buildings commencing on or after 1st September 2014.
When does Part J/TGD J apply?

These Regulations apply:

• New Build
• Material alteration and extensions
• Material change of use.

SI 497: 1997 also states in section 12,

• Subject to articles 3 and 8, these Regulations apply to all works in connection with the provision (by way of new work or by way of replacement) in relation to a building of services, fittings and equipment in respect of which Parts G, H or J of the Second Schedule impose a requirement.
When are CO detectors required

Two separate and distinct situations.

• **Situation 1:**
  
  • Where a new or replacement open-flued or flueless combustion appliance, not designed solely for cooking purposes, is installed in a dwelling, a carbon monoxide (CO) alarm should be provided:

  • (a) in the room where the appliance is located, and

  • (b) either inside each bedroom or, within 5 m (16 ft.) of the bedroom door, measured along the path of the corridor.
When are CO detectors required cont.

- **Situation 2**

- Where a system chimney is being used, with any heat producing appliance and the flue passes within or over a habitable room, (whether encased or not), then a CO alarm should be fitted in the room.
EN definitions of chimneys

CUSTOM BUILT CHIMNEYS

SYSTEM CHIMNEYS

CONNECTING FLUE PIPES
Pumice Chimney Systems
Pumice chimney systems are certified to BS EN1858:2008. Double wall pumice chimney systems, known as Double Module, are able to exploit the natural insulating properties of pumice and do not require any further insulation. Pumice systems are lightweight and come with a range of accessories designed to facilitate use with stoves. Pumice chimney systems should not be used with condensing applications.

Ceramic Chimney Systems
Ceramic chimney systems are certified to BS EN13063-1:2005. Ceramic chimney systems and liners are suitable for wood, multi fuel, oil and gas and condensing applications. The inner ceramic liner is insulated with rock wool and contained in a preformed concrete block.

Gas Flue Block Systems
Gas Flue Blocks have been specifically designed for use with gas effect fires. They must not be used on a wood burning or multi fuel appliance under any circumstance. The concrete blocks have an integral narrow rectangular flue way. They are of the same modular size as a masonry building block and are usually designed so that they bond into adjacent brick or block work. Gas Flue Blocks certified to BS EN 1858:2008

Stainless Steel System Chimneys
Stainless steel system chimneys consist of two concentric stainless steel metal walls with insulation filling the annular space between them. Some systems have a ceramic liner, which can offer a longer life. Factory made system chimneys are easy to handle and available with a wide range of fittings such as elbows, terminals and tees, all of which simple lock or push together. They are easily assembled and supported with purpose designed support brackets. These products, which can be used internally and externally, must be certified to BS EN 1856-1:2009.

Stainless steel systems tend to be used in existing buildings that do not have a chimney and extensions, because they do not require a dedicated foundation and can be easily retrofitted.
CO Locations

- In rooms where open flue or flueless appliances are fitted and
- In the bedrooms or within 5m of bedroom door.
- In habitable rooms where a system chimney from a heat producing appliance of any type passes within or over the room
Possible Locations

- CO Alarm
- Dead Air: Do not locate here

Dimensions:
- 300mm
- 150mm
- 1 to 3 m
• Alarms located in bedrooms should be located relatively close to the breathing zone of the occupants.

• Where a single room serves as living accommodation then the alarm should be positioned as far from the cooking appliances as possible but near to where the person sleeps.
CO Alarms

• EN50291-1:2010
  • General requirements for the construction, testing & performance of electrically operated CO gas detection alarms.

• EN50292:2002
  • Guide to selection, installation, use & maintenance of CO alarms.

• SWIFT 8 – NSAI Document
  • Requirements in addition to EN50291-1:2010
  • Mainly the addition of an End of Life feature.
Carbon monoxide alarms should:

(a) comply with I.S. EN 50291-1:2010 /A1: 2012; and

(b) incorporate a visual and audible indicator to alert users when the working life of the alarm is due to pass; and

(c) the manufacturer should have third party certification confirming compliance with the standard.
Types of end of Life indication

• powered by a non-replaceable (sealed) battery unit where the battery life does not exceed the life of the sensor;

• powered by mains electricity (not plug in type) where a timer is included to indicate the end-of-life of the unit;

• powered by a replaceable battery where a timer is included to indicate the end-of-life of the unit.
Information

• Where a hearth, fireplace (including a flue box), flue or chimney is provided (including cases where a flue is provided as part of the refurbishment work), a notice plate containing key information essential to the correct application and use of these facilities should be permanently posted in the building.

• The information should include the following:
  • (a) the location of the hearth, fireplace (or flue box) or the location of the beginning of the flue;
  • (b) the category of the flue and generic types of appliances that can be safely accommodated;
  • (c) the type and size of the flue (or its liner if it has been relined) and the manufacturer's name (where applicable);
  • (d) the installation date and the installers name and registration number (where applicable).
WARNING! — This label shall not be covered or be defaced

Chimney

Any Co., Any Street, Any City

Chimney designation: NSB EN 15287-1   T400 – N1 – D - 3 – G50

Nominal size: 130 mm
Thermal resistance: 0,32 m²K/W
Flow resistance: 1 mm

Installer/Address/Tel.: Mustermann, Musterstr., 99999 Musterstadt /99999-000000

Date of installation: 2004-06-22
Information & Commissioning

- The owner of the building should be provided with sufficient clear and comprehensive information on any continuing maintenance required to facilitate the effective operation of the heating system or systems in order to protect the health and safety of the building occupants.

- Heat producing appliances serving the total dwelling should be commissioned and tested at completion so that the systems and their controls are left in the intended working order and can operate effectively and efficiently.
Risk of Pollution

A significant risk of water pollution is likely to exist where the storage tank is located:

• - within 10 m of inland freshwaters or coastal waters; or
• - where spillage could run into an open drain or to a loose fitting manhole cover; or
• - within 50 m of sources of potable water, such as wells, bore-holes or springs; or
• - where oil spilled from the installation could reach the waters listed above by running across hard ground; or
• - where tank vent pipe outlets cannot be seen from the intended filling point.
Open flue, Natural draught chimney/flue location

This diagram illustrates the location and dimensions for an open flue in a natural draught chimney. The key points include:

- The edge of the higher structure is marked.
- The prohibited zone is defined by a line extending from the edge of the lower structure.
- The height of the prohibited zone is 600 mm.
- The distance from the edge of the lower structure to the prohibited zone is 10,000 mm, whichever is greater.
- The distance from the edge of the higher structure to the prohibited zone is 2,300 mm.

This diagram provides guidelines for the safe and effective installation of an open flue in a natural draught chimney.
Flue within 2.3m of welling
Flue now extended but not adequately braced.
Distance from combustibles

- Fire stop plate
- Insulated twin wall system chimney
- Connecting flue pipe
- At least 425 mm

(e) Extension of System Chimney from ceiling
New flue designation system

- Chimney
- EN 1443
- T 400
- P1
- W
- 1
- G (xx) or (xx) NM

Product Description

Number of Corresponding Standard

Temperature Class
(See Table A1)

Pressure Class
N or P or H (See Table A2)

 Resistance to Condensate class (W or D)

Corrosion resistance class
1, 2 or 3 (See Table A3)

Sootfire resistance class G or O,
Followed by a distance to combustible material
New flue designation system

- Rigid Connecting flue
- EN 1856-2
- T 400
- N1
- W
- Vm
- L 40045
- G(xx) M or (xx)
- NM*

Product Description
Document Number
Temperature class (see Table 3)
Pressure Level (N or P or H)
Condensate resistance (W: wet or D: dry)
Corrosion resistance (durability against corrosion) (see 6.7.1 and Annex A of EN 1856-1: 2009)
Connecting flue pipe material specification (see Table 2)
Sootfire resistance (G: yes or O: no) and distance to combustible material xx (in mm) and if measured M and if not measured NM (only for connecting flue pipes)
System chimneys and steel lined existing chimneys

- Prefabricated Masonry System chimney EN 1858
- Connecting flue
- Flexible flue in chimney EN 1856-2
- Twin wall flue EN 1856-1
- Connecting flue EN 1856-2
Flexible Flue Liners

Stainless Steel Flexible Liners

Stainless steel flexible liners are certified to BS EN1856-2. Flexible liners are used to reline an existing chimney. Care must be taken when selecting a flexible liner.

There are two types of flexible liners:
- Single skin liners for use with gas appliances and
- Twin skin liners, manufactured from overlapping strips of high grade stainless steel to give a smooth sealed flue-way. These liners should be used with wood and multi-fuel appliances.

Single skin liners must never be used with wood or multi-fuel applications.
Flexible flue in hotpress
Flexible flue fitted into existing flue in attic
Solid fuel Pellet boiler with “low” level terminal
Thank You!

GENERAL ENQUIRIES

- [www.environ.ie/buildingstandards](http://www.environ.ie/buildingstandards)
- [buildingstandards@.environ.ie](mailto:buildingstandards@.environ.ie)