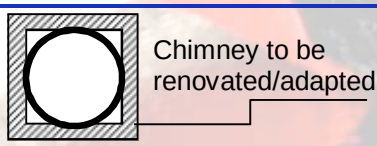
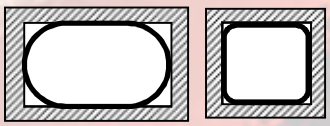
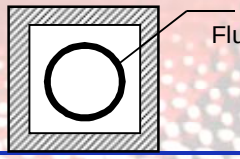
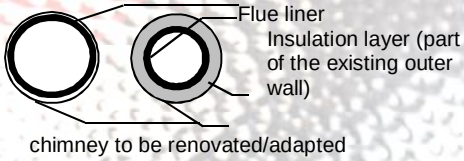
| 0989 | **DECLARATION OF PERFORMANCE** |
|---|---|
| **Product trade name** | **FitFire/FitFirePlus** |

| | |
|---|---|
| Manufacturer's identification | **Beca Engineering s.r.l.**<br>**Via Magnago 2**<br>**20010 Buscate (MI)**<br>**Italy**<br>**www.becaitalia.it**<br>**info@becaitalia.it** |
| Year of affixing CE marking | **13** |
| Number of EC certificate for the FPC | **0989-CPD-1133 date: 28/06/2013** |
| European Technical Approval (ETA) number | **ETA-13/0682** |
| Certification office | **OIB, Schenkenstraße 4., Wien, 1010 Austria** |
| Notified Body | **BTI, Karl Leitl Straße 21.,Linz/Puchenau, 4048 Austria** |
| Type of product and intended use | **Kit consisting of chimney flue liner, made of flexible compound of glass fibres and synthetic organic substances, and ancillaries for classification T 160 P1 W2 Oxx (FITFIREPLUS)**<br>**T 160 P1 D2 Oxx and T 200 N1 D2 Oxx (FITFIRE)** |
| Validity | **24/06/2018** |

| FitFire/FitFirePlus design situation | | Classification by EN 1443:2003 |
|---|---|---|
| **1a** |  | FITFIREPLUS: T160 P1 W2 O40<br>FITFIRE: T160 P1 D2 O40<br>FITFIRE: T200 N1 D2 O40 |
| **1b** |  | FITFIREPLUS: T160 P1 W2 O40<br>FITFIRE: T160 P1 D2 O40<br>FITFIRE: T200 N1 D2 O40 |
| **2** |  | FITFIREPLUS: T160 P1 W2 O40<br>FITFIRE: T160 P1 D2 O40<br>FITFIRE: T200 N1 D2 O40 |
| **3** |  | FITFIREPLUS: T160, P1 W2 O<br>FITFIRE: T160, P1 D2 O<br>FITFIRE: T200 N1 D2 O |

| Thermal resistance values for different design situations for FITFIRE / FITFIREPLUS (T160) | | | |
|---|---|---|---|
| **Internal diameter** | **Design situation according to Annex 1 of ETA-13/0682** | **Result $\left(\frac{m^2K}{W}\right)$** | **Thermal Resistance** |
| 0,195 m | no. 1a | 0,113 | **R11** |
| | no. 1a with insulation of thickness 25 mm | 0,537 | **R54** |
| | no. 1b | NPD* | **NPD*** |
| | no. 2 (without ventilation) | 0,171 | **R17** |
| | no. 2 (with ventilation) | 0,145 | **R15** |
| | no. 2 (without ventilation; with insulation of thickness 25 mm) | 0,629 | **R63** |
| | no. 2 (with ventilation; with insulation of thickness 25 mm) | 0,583 | **R58** |
| | no. 3 (without thermal insulation) | 0,00987 | **R01** |
| | no. 3 (with thermal insulation of thickness 25 mm) | 0,45388 | **R45** |
| * NPD: No performance determined | | | |

| Thermal resistance values for different design situations for FITFIRE / FITFIREPLUS (T200 D2) | | | |
|---|---|---|---|
| **Internal diameter** | **Design situation according to Annex 1 of ETA-13/0682** | **Result $\left(\frac{m^2K}{W}\right)$** | **Thermal Resistance** |
| 0,195 m | no. 1a | 0,109 | **R11** |
| | no. 1a with insulation of thickness 25 mm | 0,404 | **R40** |
| | no. 1b | NPD* | **NPD*** |
| | no. 2 (without ventilation) | 0,152 | **R15** |
| | no. 2 (with ventilation) | 0,127 | **R13** |
| | no. 2 (without ventilation; with insulation of thickness 25 mm) | 0,491 | **R49** |
| | no. 2 (with ventilation; with insulation of thickness 25 mm) | 0,445 | **R45** |
| | no. 3 (without thermal insulation) | 0,00987 | **R01** |
| | no. 3 (with thermal insulation of thickness 25 mm) | 0,45388 | **R45** |
| * NPD: No performance determined | | | |

| **Main design characteristics** | **Performance** | **Harmonised Technical Specification** |
|---|---|---|
| Compressive strength | **10,5 Mpa** | |
| Maximum vertical height | **212m** | **EN 1856-1 and CUAP 08.02/25bis-1** |
| Maximum non-vertical height | **36m** | **EN 1856-1 and CUAP 08.02/25bis-1** |
| Maximum inclination | **45°** | **CUAP 08.02/25bis-1** |
| Flow resistance | **r = 0,00035m** | **EN 13216:2004** |
| Freeze/thaw resistance | **Passed** | **EN 13216:2004** |
| Classification of reaction to fire | • **FITFIRE / FITFIREPLUS: B –s1, d0,**<br>• **Steel elements: A1**<br>• **Sealing rings: E/F**<br>• **Insulation (including outer textile) when assembled with FITFIRE / FITFIREPLUS: A2-s1, d0** | **13501-1:2007 and A1:2010**<br>**Insulation: EN 14303** |
| Reaction to fire of the kit | **No harmonized verification method –NPD*** | **-** |
| Dangerous substances | **No health impact during installation, under operating temperature and under higher temperature (600°C)** | **CUAP 08.02/25bis-1** |

This document is valid with **ETA-13/0682** and certificate for conformity of FPC

**30/06/2013**

**dott. ing. Carlo Lezzi**
**CEO**