

**DECLARATION OF PERFORMANCE
FLY-ASH ACCORDING TO EN 450-1 (cat. B)**

EFA-Füller® MR 3 B-01072015

1. Unique identifier of the product type

**Fly-ash for use as type II filler in concrete, mortar and grouts,
according to EN 450-1: 2012**

2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4):

See delivery sheet: product name, date of loading, transport number

3. Intended use of the construction product, in accordance with the applicable harmonized technical specification, as determined by the manufacturer:

**Addition for the production or for use in concrete, according to
EN 206-1, and for use in mortar and grout**

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant Article 11(5):

E.ON Benelux NV Coloradoweg 10 3199 LA Maasvlakte RT, The Netherlands

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):

Not applicable

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:

System 1+

7. Activity of the notified certification body as required in the harmonised standard:

Kiwa BMC B.V., identification number 0956, performed under System 1+
- the initial inspection of the manufacturing plant and of factory production control;
- the continuous surveillance, assessment and evaluation of factory production control;
- the audit-testing of samples taken before placing the product on the market; and issued the certificate of constancy of performance with number: 0956-CPR-1319.

8. In case of the declaration of performance concerning a construction product covered by a European Technical Approval:

Not applicable

9. Declared performance

Essential characteristics	Performance	Harmonised technical specification
Loss on ignition	≤ 7,0 % category B	EN 450-1:2012
Chloride (Cl)	≤ 0,10 %	
Sulphate content (SO ₃)	≤ 3,0 %	
Free calcium oxide (CaO free)	≤ 1,5 % ¹⁾	
Reactive CaO (as total CaO)	≤ 10 %	
Reactive SiO ₂	≥ 25 %	
Sum of contents SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃	≥ 70 %	
Total content of alkalis (Na ₂ O-eq)	≤ 5,0 %	
Magnesium oxide (MgO)	≤ 4,0 %	
Soluble phosphate content (P ₂ O ₅ soluble)	≤ 100 mg/kg	
Total phosphate content (P ₂ O ₅ total)	≤ 5,0 %	
Fineness > 45 µm	14 ± 10 % category N	
Activity index	After 28 days: ≥ 75 % After 90 days: ≥ 85 %	
Soundness: expansion	≤ 10 mm ¹⁾	
Particle density	2300 ± 200 kg /m ³	
Initial setting time: difference between cement and fly-ash cement paste	Maximally twice as long as initial setting time of the 100 % (m/m) cement paste	
Durability	NPD ²⁾	
Release of dangerous substances and emissions of radioactivity	NPD ³⁾	

¹⁾ If CaO free ≤ 1,5% the requirement for soundness is deemed to be satisfied. If CaO free > 1,5% the requirement for CaO free is met if soundness ≤ 10 mm. (5.2.5 and 5.3.3 of EN 450-1:2012).

²⁾ The composition and performance of the fly ash is such that with this fly ash durable concrete can be produced (see EN 206-1).

³⁾ Fly ash contains no components which, when released from concrete performs risk to health, hygiene and the environment. Under Article 31 of the REACH Regulation no additional information is necessary. The product is registered and has no hazardous properties according to CLP.

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4:

Signed for and on behalf of the manufacturer by:



Maasvlakte July 1, 2015

R. van Rij

Team manager Fuel Planning – E.ON Benelux NV