VLIEGASUNIE

PRODUCTSPECIFICATION PKVA CG (A) February 17, 2010

Fly ash
according ETA 09/0285 and EN 450-1+A1
for use as type II addition in concrete, mortars and grout

Producer:	**Production plant**		
Vliegasunie B.V. PO Box 265 4100 AG Culemborg tel: +31345 - 509988 fax: +31345 - 509980 www.vliegasunie.nl	**Electrabel Nederland N.V.** Centrale Gelderland Weurtseweg 460 6541 BE Nijmegen	CE **09** **0956-CPD-1307**	BENOR

Relevant clause in EN 450-1	Characteristics	Requirements	Category
5.2.2	Loss on Ignition	≤ 5 %	Category A
5.2.3	Chloride (Cl)	≤ 0.1 %	
5.2.4	Sulphuric anhydride (SO_3)	≤ 3 %	
5.2.5	Free CaO	≤ 1.0 %	
5.2.6	Reactive CaO (as total CaO)	≤ 10 %	
5.2.7	ReactiveSiO_2	≥ 25 %	
5.2.8	Sum of the content of SiO_2, Al_2O_3 and Fe_2O_3	≥ 70 %	
5.2.9	Total content of alkalis (Na2O-eq)	≤ 4.5 %	
5.2.10	MgO	≤ 4 %	
5.2.11	Total P_2O_5 Soluble phosphate	≤ 5 % ≤ 100 mg/kg	
5.3.1	Fineness > 45 micron	< 40 % and variation ± 10 percentage points	Category N
5.3.2	Activity index	After 28 days: ≥ 75 % After 90 days: ≥ 85 %	
5.3.3	Soundness	≤ 10 mm	
5.3.4	Particle density	2200 kg /m^3	
5.3.5	Initial setting time, difference between cement paste and cement/fly ash paste	Twice as long as the initial setting time of a 100 % (by mass) test cement paste	
5.4.2	Dangerous substances	according Dutch regulations (NL)	

EG declaration of conformity

We declare, in accordance with article 14 of the Construction Products Directive (89/106/EEC), that the product according to this Product specification delivered of the location Electrabel Nederland N.V., Centrale Gelderland, Weurtseweg 460, 6541 BE Nijmegen conforms to CUAP (ETA request No 03.01/34) and EN 450-1+A1 with conformity established according to EN 450-2 as given in Annex ZA van of EN 450-1+A1

The FPC system is controlled by the approved body BMC and certificate of conformity number:
0956-CPD-1307
is October 9, 2009 issued

Culemborg, February 17, 2010

A.Korthout, director