

11.15 – 11.45

COFFEE

11.45 – 12.15

Viable recovery options for construction and demolition waste.

Christian J. Engelsen, SINTEF, Norway

12.15 – 12.45

OSAMAT – oil shale ash use in road construction – monitoring intermediate results

Arina Koroljova, Eesti Energia AS

Andres Brakmann, Ramboll Estonia





OSAMAT – Oil Shale Ash Use in Road Construction



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OSAMAT Project Goals

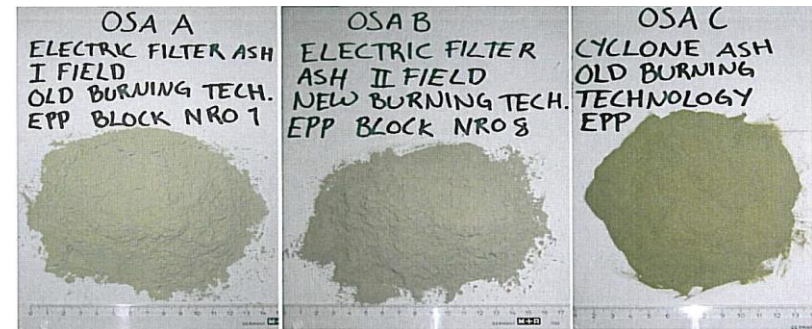
- OSA is a valuable construction material
- OSA utilisation is safe for the environment





Oil Shale Ash

- Is a product of combustion of oil shale under $t=1400\text{ }^{\circ}\text{C}$ (pulverized firing) and $t=900\text{ }^{\circ}\text{C}$ (circulated fluidized bed combustion)
- Calcareous



Type of OSA	Boiler type, firing temperature	Specific surface, kg/m^2	CaO	CaO free, %	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	SO ₃	K ₂ O	Na ₂ O
CYCL PF	Pulverised firing, up to $1400\text{ }^{\circ}\text{C}$	86-150	56	18-24	22,1	11,9	4,9	4,0	1,5	1,5	0,1
BF PF	Pulverised firing, up to $1400\text{ }^{\circ}\text{C}$	280-320	39	6-14	25,7	6,7	3,9	4,7	7,3	3,7	0,1
EF CFB	Circulated fluidised bed combustion, firing temperature up to $900\text{ }^{\circ}\text{C}$	450-800	28	1,6-8	38,6	5,8	5,1	4,5	4,1	4,5	0,2



Thank you!

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