



DISPERGAT

Some of the uses of the product

- **as a stand alone dry (cement like), building material**, which does not necessarily require the addition of gravel, stones, etc. It only needs the addition of water and can be used for road construction, civil engineering, etc.,
- **as a dry binding material** for delivery to site for the inclusion of crushed old concrete, hardcore, etc., to be mixed with water, on site, to make a concrete like building material for road construction, civil engineering, etc.,
- **as a binding material for the complete immobilisation of noxious substances in toxic waste** making a product that is waterproof and elution proof, for use in land-fill sites, retaining walls, access roads etc.,
- **as an additive to clay used in cement or brick manufacture.** It cuts down the preparation time for the clay to a few minutes through an homogenic process irrespective of the water content,
- **as a desulphurisation sorbent in dry or semi-dry, coal fired power station plant** where the equipment is already in use. This sorbent can also be used in CFB equipped stations.

It should be noted that DISPERGAT can be transported in a dry state, in standard silo trucks, or can be stored in silos. It is not adhesive or toxic. It can also be transported as a wet-mix in open trucks. Ready-mix, revolving drum, trucks are not required.

The most important advantage of DISPERGAT is that the mechanical/ physical characteristics and quality parameters are guaranteed in the final product, i.e. compressive strength, proof against elution, underwater storage durability and permanence are ensured after the hardening process is complete.

The hardened material corresponds with LAGA Z 2 or even Z 1 requirements concerning the treatment of waste products to produce building materials.



The IVU-FAR Technology

DISPERGAT APPLICATIONS

<i>Field of application</i>	<i>Purpose</i>	<i>To substitute for</i>
Hydraulic engineering	Prefabricated elements etc.	Concrete / Cement Gravel
Road construction Track construction Civil engineering Noise control	Road beds Noise absorbing walls Retaining walls Abutments Drains Pipes, etc.	Gravel/Grit/Sand Hard rock Clay Concrete
Land-fill site construction	Mineral barriers Mineral sealings Retaining walls Tip covers etc.	Concrete / Cement Gravel Lime Hard rock Asphalt-concrete
Waste recycling Waste disposal	Immobilisation Inertization etc.	Clay Cement Glass Lead

The IVU-FAR Technology

DISPERGAT

COMPRESSIVE STRENGTH ANALYSIS (dry)

Material: 100 % Filter Ash

Treatment: IVU-DISPERSOPT process

Material/Source	Compressive strength MPa = N/mm ² (1 MPa = 10 Kp/cm ²)		
	After 7 days	after 28 days	after 90 days
Dekon MUM	22	23	41
	22	24	42
	20	26	42
Dekon BOR	28	36	32
	31	37	39
	30	34	37
Dekon ESP	23	30	35
	27	30	31
	26	30	33

The IVU-FAR Technology

DISPERGAT

COMPRESSIVE STRENGTH ANALYSIS (under water)

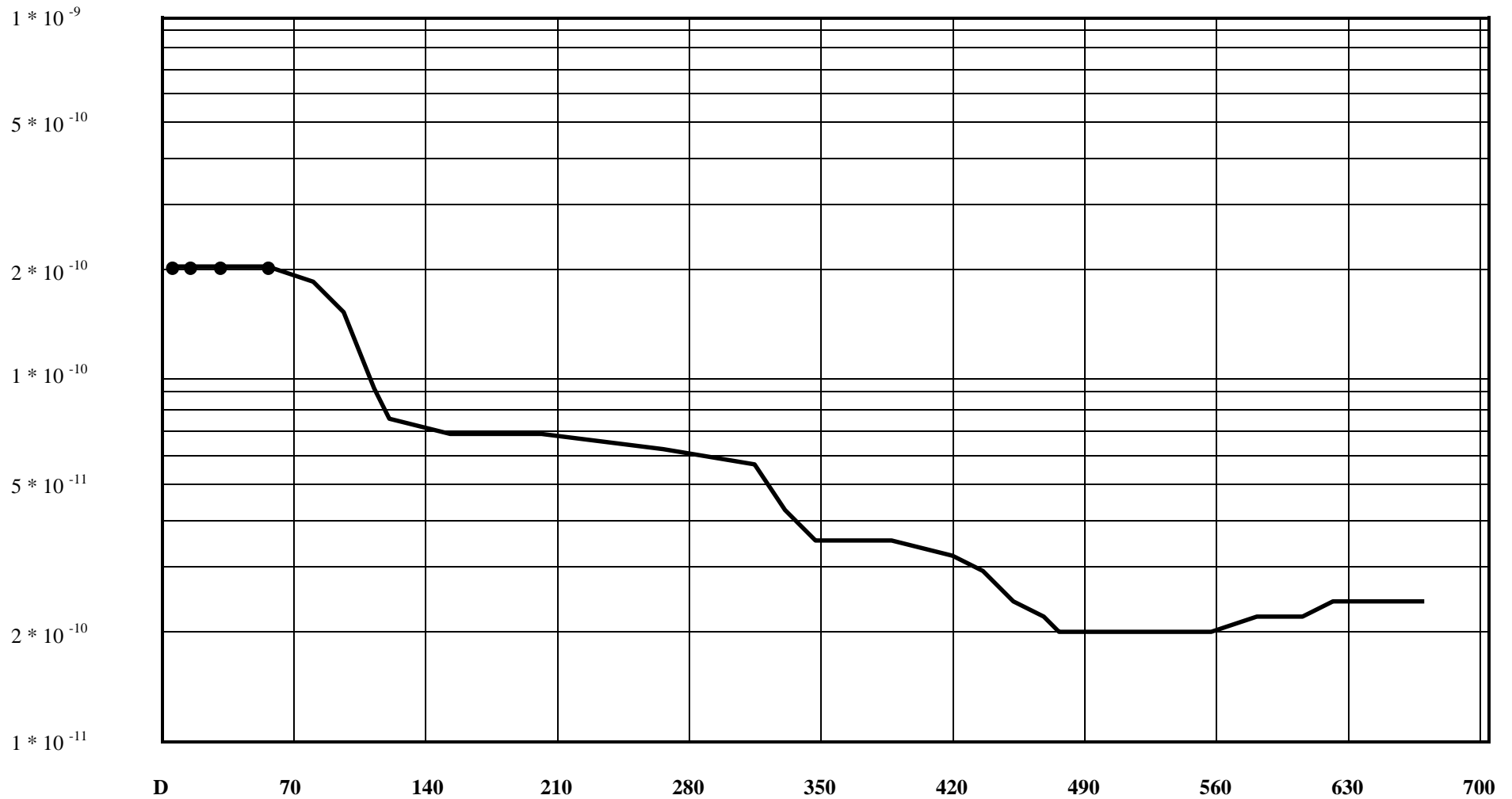
Material: 100 % Fly Ash

Treatment: IVU-DISPERSOPT process

Code	normal storage		7 days normal storage + 21 days underwater storage temperature 20 ° C		7 days normal storage + 21 days underwater storage temperature 4 ° C		underwater storage stability code
	compressive strength MPa	bending strength MPa	Compressive strength MPa	bending strength MPa	Compressive strength MPa	bending strength MPa	
	after 28 days		after 28 days		after 28 days		
M 29	25.9	4.0	25.3	3.8	19.0	3.4	3d
M 20	25.6	6.1	32.0	6.3	25.4	4.7	3d
B 5	28.4	4.7	28.8	3.9	28.6	4.4	3d
B 4	23.6	4.5	29.6	3.4	27.5	4.1	3d
E 4	25.5	4.8	27.3	3.7	21.9	3.7	5d
EB 4/3	26.7	5.2	24.5	3.8	21.4	3.7	5d

<p>ERDBAULABOR GÖTTINGEN hans - Böckler - Str. 2 3400 Göttingen Bearbeiter: Grundmann Datum: 15.07.1993</p>	<p>Perviousness test DISPERGAT</p>	<p>Test N</p>
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Water perviousness (m/s) 10





If you want to know more...

We offer our support to facilitate your planning, subject to receipt of the following information:

a) Which kind of ash will be treated?

- Fly ash
- boiler ash (slag)
- fly and bad ash

b) Which combustion material is used?

- brown coal
- lignite
- oil shale
- brown coal briquettes
- hard coal

c) Origin of the coal or of the lignite (seam or deposit)?

.....
.....

d) Which steam generators are used?

- mill boiler
- grate boiler
- fluidized bed boiler

e) Specifications of the following:

- Capacity of steam generator

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- Coal consumption per hour

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- Average ash output per hour

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f) Which desulphurisation process is used in the case where no fluidized bed boiler is installed?

- dry admix treatment
- spray absorption treatment
- wet treatment



g) If you have analysed the ash, we require the following values for each chemical:

- | | |
|---|----------------------------------|
| g 1) CaO (> 10%). | g 5) Na ₂ O |
| g 2) MgO | g 6) K ₂ O |
| g 3) Al ₂ O ₃ | g 7) SiO ₂ |
| g 4) Fe ₂ O ₃ | g 8) SO ₃ |

obtained from the basic analysis.

h) Is it planned, to add fly ash from other combustion plant?

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i) How many tons of ash will be treated within 8/16/24 hours?

- (8).(16) (24).

j) Are you considering the possibility of mixing other waste materials during the treatment? If yes, which types?

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k) Which marketing and sales strategy will you use for your product?

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l) Which applications do you see for your product?

- land-fill construction mining (backfilling)
- roads, paths, or hydraulic engineering

- other:

Company address

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.	department/operator
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.	Tel.
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area code city	Fax
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date	signature