Examples of use

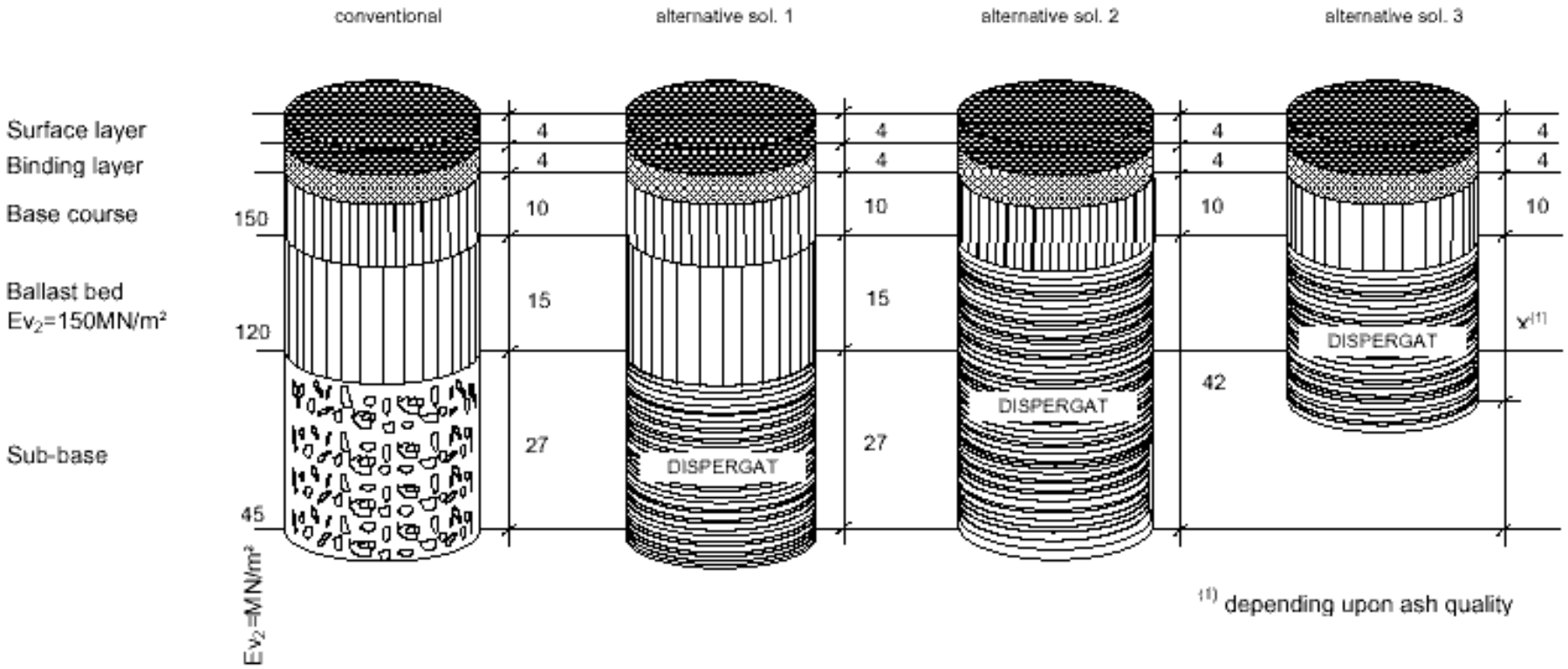
for roads and paths

Use of the DISPERSOPT-technology within road construction projects

Tests in road construction in accordance with the German **RSTO 86** code **3.1** class **III**

TABLE 1. Construction with bituminous layer for roads
Bitumen base course and ballast layer on sub-base

code 3.1 class III



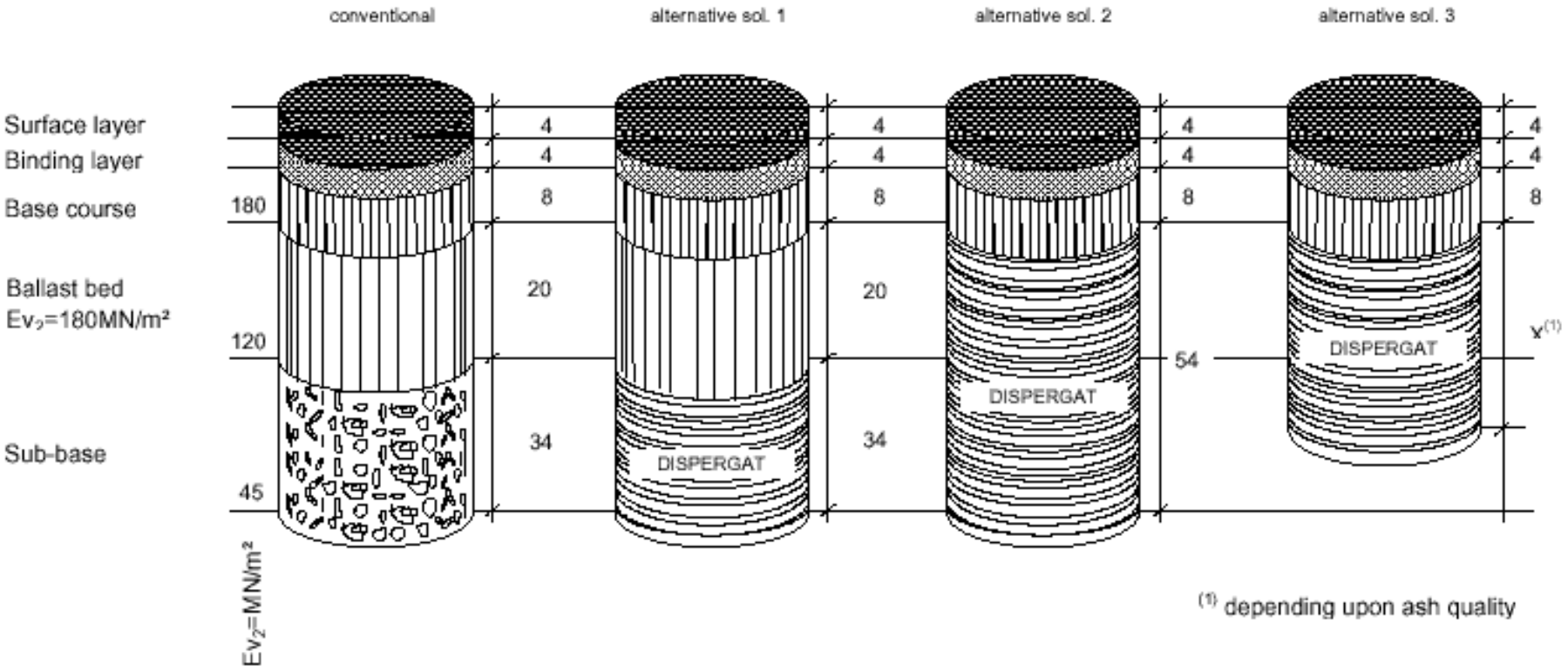
[1] depending upon ash quality

Use of the DISPERSOPT-technology within road construction projects

Tests in road construction in accordance with the German **RSTO 86** code **3.2** class **III**

TABLE 1. Construction with bituminous layer for roads
Bitumen base course and ballast layer on sub-base

code 3.2 class III



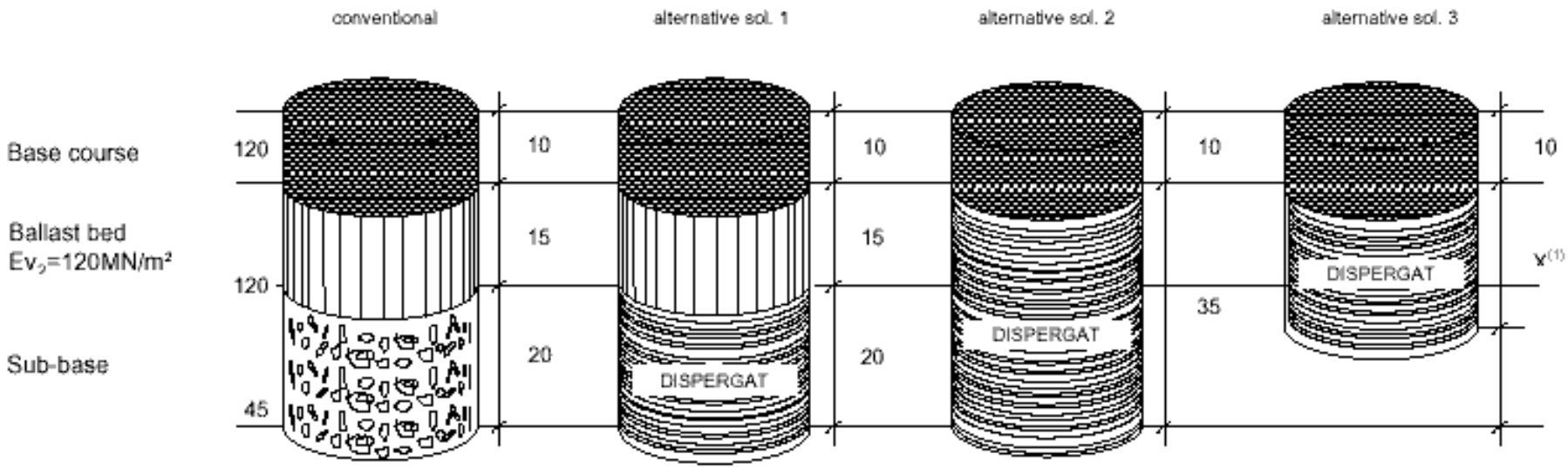
(1) depending upon ash quality

Use of the DISPERSOPT-technology within road construction projects

Tests in road construction in accordance with the German **RSTO 86** code **3.1** class **VI**

TABLE 1. Construction with bituminous layer for roads
Bitumen base course and ballast layer on sub-base

code 3.1 class VI



(1) depending upon ash quality

The IVU-FAR Additive
for the preparation of clay

Used in the brick manufacture and the cement industry

This remarkable additive has numerous uses and new applications are being identified all the time.

The maximum quantity of additive necessary in the mixture is about 8 % by volume and is suitable for dry and waterlogged clay. The mixing is undertaken in specially designed IVU equipment which can be manufactured to handle any volume required.

Because of the exceptional nature of the additive it will produce a much higher quality end product at a much reduced cost in time and energy.

For example:

- brick and cement type clays normally take days, sometimes weeks to prepare. The manufacturers are often prevented from using the clay at certain times of the year when it is either too dry or waterlogged. **The IVU FAR Additive enables the clay to be prepared in just a few minutes with a guaranteed regular level of consistency and malleability at any time of the year,**
- treated clay **can be transported conveniently and does not degrade in time. It can also be stored in granular form for long periods. In this condition it is not adhesive and can be handled easily,**
- IVU takes responsibility for **providing the mixing plant and will make all set-up arrangements to create a turn-key operation. It is possible to utilise existing plant, dependent upon the type of operation, thereby reducing the likelihood of large new investment,**
- IVU-FAR Additive treated clay can also be used **in providing and preparing clay membranes for land-fill sites in almost any weather conditions and all seasons. These membranes are elastic and impervious to leeching.**

The IVU-FAR Additive has already proved to be a valuable and very cost effective product used in a rapidly growing number of situations, making them ecologically safe. New uses are being identified all the time.

The IVU-FAR Sorbent

for

dry and semi-dry desulphurisation
or CFB processes

- for improving efficiency within dry and semi-dry desulphurisation processes
- for reducing the cost of lime processing
- for reducing lime consumption by up to 50 %
- for the production of a high-quality matrix ash for DISPERGAT-building material.

The IVU-FAR Sorbent, an exceptional economic opportunity . . .

Desulphurisation is an ecological requirement demanded by law.

This requirement necessitates expensive plant and running costs. This is especially true concerning the cost of lime powder used in the process.

By using IVU-FAR Sorbent within dry and semi-dry desulphurisation or CFB processes, costs can be kept to the minimum.

In addition, the Sorbent Desulphurisation Process offers a matrix ash which can be used as an economical and ecological building material.

In general, the production of IVU-FAR Desulphurisation Sorbent is based on the Fly Ash Recycling (FAR) principle.

The decisive difference is that, by means of a special mixer, the ash to be treated is mixed with lime granules of a grain size up to 8 mm. **The expensive fine milling process of lime stone is no longer required.**

The dosage of the lime bymix depends on the degree of desulphurization required and the sulphur content of the coal being burned.

As soon as the moistened ash lime mixture has entered the processing unit, the lime granules disintegrate as a result of an increase in temperature caused by the additional water.

Within the treatment duration of approximately 50 minutes, the ash particles become carriers for the lime powder, thereby increasing the lime surface area.

After treatment, the sorbent is of a consistency that can be stored in silos, ready to be blown into the boiler.

The outcome achieves two decisive factors:

a) the increase in lime surface area enables far greater desulphurisation efficiency;

b) the quantity of lime powder usually required can be reduced by up to 50 %, depending on the quality of coal and the degree of desulphurisation required.

Because of all these advantages, the amortization of the plant, the investment can be for as little as three years. A no less important fact is that the desulphurisation sorbent, after being used, has all the advantages of an excellent matrix ash, and can be used as the basis for the creation of a quality building material, **DISPERGAT**.

IVU-FAR-Sorbent ash can guarantee a pressure resistance in the **DISPERGAT** up to 40 Mpa.

In conclusion, it should be noted that very attractive economical results can be expected if:

a) desulphurisation within dry, semi-dry and CFB systems is undertaken with the aid of the **IVU-FAR** desulphurisation process and,

b) the **DISPERGAT** building material is accepted for civil engineering purposes, i.e. road construction and mining. It is a very economical and an ecologically sound product.

If you are interested to learn more, please do not hesitate to contact us in **Germany**:

- by e-mail on: info@retexo.de
- by telephone: ++49/34498/466-0
- by fax: ++49/34498/466-11
- by writing to: Mr. Erhard Schlüter, **Retexo-RISP** GmbH, Altenburger Str.31; **D-04617 Rositz**

United Kingdom:

- by e-mail on: norman.owen@retexo.co.uk
- by telephone: ++44/181/657/0498
- by writing to: Mr. Norman H. F. Owen, Retexo-RISP Ltd. (U.K.), 10 Hartscroft, Linton Glade, Forestdale, Croydon, Surrey, CR0 9LA, U.K.

or, by visiting our FAR-plant. We shall be exhibiting during the EXPO 2000, in Germany.

You will be most welcome, whichever method you choose!