

ALPHASOIL® technical solutions GmbH

System Comparison

Alphasoil®-06

Alphasoil®-06 Costs- System- Comparision

- **Where are the differences?**

Everyone who's professionally engaged in roadwork's knows the giant costs thereby incurred. On one hand the roads are supposed to be built up fast and easily, on the other they have to meet a lot of requirements. That costs are pretty expensive! And that's not only related to constructing requirements but also issues of preservation. How will the shape of the road be after 1, 5 or 10 years..? For many non-asphalt roads rain and chill are causing problems. The roads will thereby either be flushed out or eroded while ice and chill make them perish. So an alternative is in great demand.

But what alternatives are available?

Alphasoil®-06 Costs- System- Comparision

- **The aim is to create a roadwork's system which will save costs and time. A system to build up roads fast and easily where as the quality stays definitely right as well. This would be an enormous saving of cost.**
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 - **What does Alphasoil®-06 System: Saving time and money!**
 - Well, this could be affirmed by anyone, of course. But based upon the Alphasoil®-06 System we can also prove it. Just have a closer look at the entire procedure by means of the subsequently represented comparison! In this case it's concerning an asphalt road.

Alphasoil®-06 Costs- System- Comparision

Is it possible to save 10.000 truck loadings?

We say yes!

Supposing a road width of 10 m and an excavation which is 70 cm deep you will have to - if the road is 10 km long - dredge and carry away about 70.000 m³ of ground.

If now we presume that the specific weight of the dredged ground is 1,8 (lower limit) this will result in about 126.000 tons of material! A skip like the mapped "CAT" is providing a payload of 25 tons. So even if you dispose of that big brawny truck



there would be 5.040 loadings necessary just for the evacuation! And of course you will need the same number of loadings for delivering gravel and other material to the road work location as well. Also we have to deposit the evacuation!

That means over all more than 10.000 loadings!

Thus a enormous effort which is for the most part unneeded if you use **Alphasoil®-06 System** since you may work with the local existent soil. This very fact results in a huge saving! Not only costs but also time. Not to speak about environmental issues.

Alphasoil®-06

Costs- System- Comparison

Conventional System

Mould removal:



Alphasoil®-06 SYSTEM



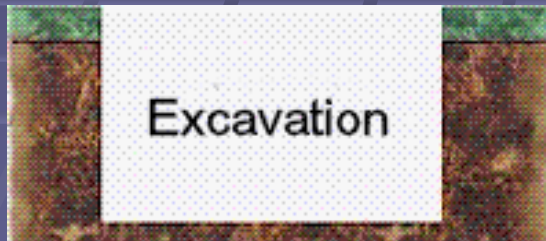
The upper layer is going to be removed (e.g. meadow or grass - see the green top layer on the graphics). This operation is the same for both systems.



Alphasoil®-06 Costs- System- Comparision

Excavation:

On conventional roadworks the existent ground will be removed and carried away. That means a big effort on work, material and time. After all about 5000 truck loadings have to be dredged, loaded and carried away.



No excavation with Alphasoil®-06!

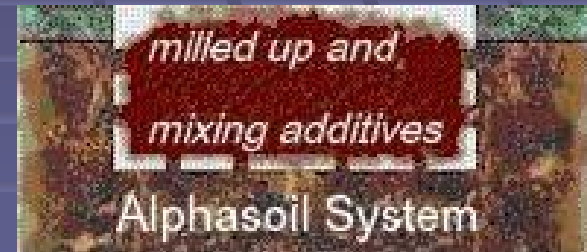
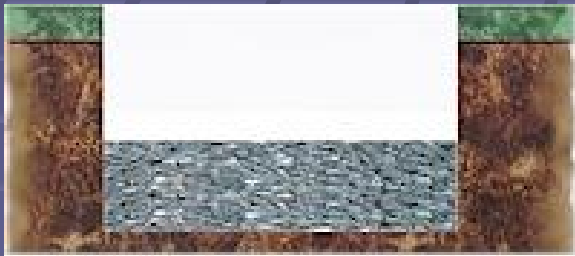
As with the Alphasoil®-06 System the available ground may be utilized there is no excavation required. This work step is omitted completely. That's one of the big savings

Alphasoil®-06 Costs- System- Comparision

UP-Setting

Chill trunk:

After the excavation on conventional roadwork's a UP including a chill trunk consisting of gravel will be applied. The therefore required material is not only expensive but also has to be delivered to the road work from other areas.



Ground milling!

Using Alphasoil®-06 System the existent ground gets milled up by special machines and at the same time meddled with other materials and Alphasoil®-06 additive. All in one single and time/cost saving work step!

Alphasoil®-06 Costs- System- Comparison

Upper uncombined base layer:

After the UP is applied the work continues with the upper un-combined base layer featuring as well special gravel. Again this induces extra cost and time because material has to be delivered from elsewhere.

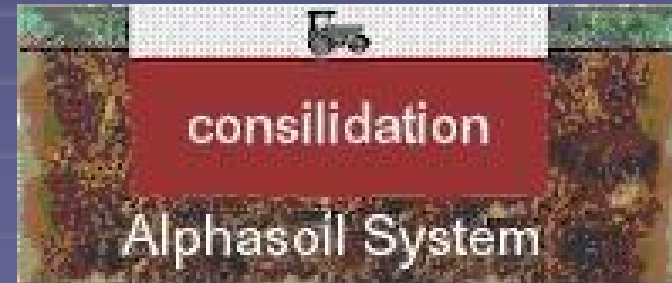


Step is not
necessary with Alphasoil®-06!

Alphasoil®-06 Costs- System- Comparision

Consolidation works:

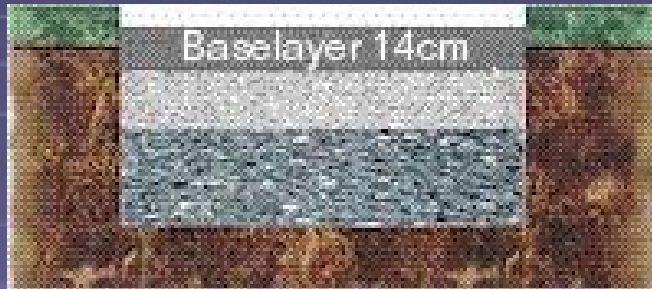
This working stage is the same for both systems. The flat roller is coming into operation.



Alphasoil®-06 Costs- System- Comparision

Bituminous base layer 14cm:

Now the bituminous base layer is applied with a dimension of 14cm.



Bituminous base layer with
Alphasoil®-06 only 7 cm:

Also the Alphasoil®-06 System is requiring a bitumen base layer which however has a dimension of only 7cm. That's entirely sufficient for this system.

Alphasoil®-06 Costs- System- Comparison

Completion: Top layer 8-12cm

By applying the top asphaltic layer the road is now completed. On conventional roadwork's systems this layer has a dimension of 8-12cm.



Completion: Top layer 4-6cm
with Alphasoil®-06:

On the Alphasoil®-06 System the asphalt layer needs a dimension of 4-6cm only. So again you will save time and money.

Alphasoil®-06
Costs- System- Comparision

Conclusion:

With this system comparison we proved the benefits of Alphasoil®-06 system against conventional roadwork's.

With Alphasoil®-06 System roads may be built up and constructed faster and easier.

You will save lots of expenses and lots of environmental resources!!