PASCO*protect*

Your step to more durable paving

PASCO*protect* Paving Stones are produced with a combination of additives which make the product denser and reduce penetration of liquids into the capillary system.

PASCO*protect* is recommended at all places where one can expect that paving will be under stress from all kind of surface- or underground water containing harmful Chlorides or Sulphates.

In addition PASCO*protect* surfaces show increased abrasion resistance

Outlook:
By utilising the benefits of new generation additives to traditional concrete mixes a completely new building material with a wide range of possibilities has emerged. PASCO is in the forefront of this emerging technology

Fig. 1


Fig. 3

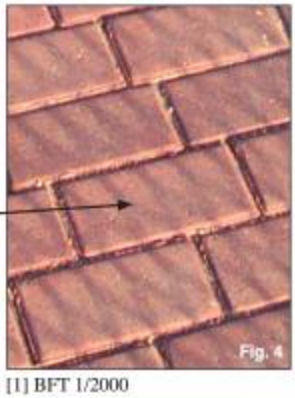
Fig. 4

[1] BFT 1/2000

Future-oriented concrete protection of paving stones

During the past few years consumer demands on concrete as a construction material have been continually on the rise [1]. Apart from the visual aspect and load-carrying capacity, it is now that such features as cleaning comfort, durability and thus general value maintenance play an increasingly important role. Future - oriented concrete processing companies are forced to seek the answer in a change of technical parameters relating to the materials used.

In the past processors of concrete had only traditional and, as a rule, effective materials at their disposal. In addition, the confusing variety of concrete protection systems often made it very difficult for the processor to find the appropriate system for his purpose. Furthermore, processing during the course of the production process in a concrete works is usually most complicated and in some cases not practicable. PASCO works now with a new system which opens up entirely new perspectives for manufacturing concrete paving stones optimised to resist environmental attack.

"Everything starts out wet" - because of the way they are used, concrete paving stones are permanently exposed to a whole variety of environmental influences and other strains. Damage to concrete quite simply starts with water. It carries harmful substances in dissolved form into the capillary system of porous construction materials (including natural stone).

Many of the reactions which take place due to these influences have a damaging effect and reduce durability. In most cases, water is involved in these processes, either as the transporting medium (e.g. for chlorine) or as the co-reactant (e.g. in carbonation). If, therefore, it is possible to protect the cement-bound construction materials from absorbing water and watery solutions in their capillary systems, their durability can be increased significantly and the expense of maintenance considerably reduced.

The function of moisture-proofing is thus to eliminate or reduce the capillary absorbency to such an extent that the paving stones remain unaffected by damaging media and to prevent or impede the concrete surface from becoming wet and to reduce the capillary absorption of water. In this connection the surface tension of the water plays a crucial role.

In its PASCO*protect* series the face-mix layer of PASCO Paving Stones is produced with a variation of chemicals developed after year long research and in co-operation with European laboratories involved in this field.

PASCO*protect* is more than a hydrophobing surface treatment. Hydrophobing spray would have to be repeated about every two years to stay in effect. PASCO*protect* is applied into the concrete face-mix on the wet side of the Paving production and remains protective over the lifetime of the Paving. The visual appearance of the original concrete surface remains unchanged.