

ZEO

To wash in the washing-machine without polluting but saving.

ZEO is composed of two disks, containing a mineral called zeolites, to be placed in the drum together with the laundry. Zeolites, the newest ecological invention present in the modern detergents, are able to sweeten water making the action of the detergent more efficient and reducing deposits. Using the two disks of **ZEO** you can reduce the amount of detergent up to 70% and the amount of softener up to its elimination.

The zeolites in fact - submitted to heating - generate a new process known as intumescence.

This phenomenon allows a rapid removal of the water they contain, so fast that it gives the visual effect that the mineral itself is boiling.

The name zeolite comes from this behaviour, from the Greek "**zeo**" which means "to boil" and "lithos" meaning "stone".

Zeolites are wide channels minerals (mono-, bi-, or three dimensional) with controlled porosity where the water molecules are placed. Their feature is the variable content of water which evaporates, by heating, without the crystal undergoing any change; indeed, placed in a humid atmosphere, the crystal absorbs the initial water content. In the dehydrated crystal, the place already occupied by water can be taken by molecules, mainly calcium and magnesium molecules.

By taking away calcium and magnesium from water, zeolites and therefore our product **ZEO**, reduce the total hardness. The presence of the hardness ions (calcium and magnesium) in the water used strongly affects the washing results.

Indeed, the cleansing action of any detergent is strongly influenced by the presence of calcium and magnesium ions, that reduces its solubility and therefore its efficiency.

For this reason, the quantity of detergent to be used for each washing cycle must be evaluated according to the water hardness, and a hardness reduction allows to wash with less detergent.

The washing machine operating cycle allows the zeolites to "operate" at best; in fact, by washing machine water heating, the zeolites of **ZEO** give out the water they contain, subtracting calcium and magnesium carbonate to the water, making the water less hard and allowing to wash with less detergent;

Finally, when the cycle is completed, they reacquire the previously loosened water, re-hydrating and preparing themselves to a new washing cycle.

The use of **ZEO** leads to a washing powder saving, proportioned to the water hardness, which at 30°F will vary from 50 to 70% (according to the quality of the detergent used); the use of an excessive quantity of washing powder is not only uneconomical, but it also increases the risk of an excessive foam with bad rinsing results. The two disks of **ZEO** have always to be used together and placed with the laundry into the drum.

ZEO reduces the amount of detergent used, and - improving its action - also reduces the negative effects of the presence of the hardness salts (deposits, bleaches, etc.) and eliminates the use of washing additives (i.e.: softener, water softening products, additives for the most resistant stains, etc.).

You will find in each package some advice on how to clean various types of fabrics and the most resistant stains.

A small amount of softener is recommended for those who would like to obtain a more perfumed laundry.

ZEO is approved by **E.M.P.A.** and **COSMETER** and it is in compliance with the requirements of the ecological association "**FOR AN ECOLOGICAL WORLD**", that is an ecological brand indicating a product "compatible" with the environment.

ZEO is in compliance with EEC directives.

