Who prefers the Nature can rely on us.

CALCIDUR®
HYDRADUR®

Natural Hydraulic Lime
NHL2 / NHL3.5 / NHL5
(compliant with EN 459-1)

the one-of-a-kind binder for mortars and plaster used in historic conservation work and environmentally friendly building construction

... since it all goes down to the right binder!

FASZINATION KALK ...

OTTERBEIN

... SEIT JAHRTAUSENDEN BEWÄHRHT ®
Lime mortar - tried and tested for centuries ... ... create objects with CALCIDUR®/HYDRADUR®

CALCIDUR®/HYDRADUR® from OTTERBEIN are:

- **pure lime binders**
  - Their advantages:
    - CALCIDUR®/HYDRADUR® are obtained from a unique natural lime-stone marl and do not contain any other additives
    - CALCIDUR®/HYDRADUR® meet the stipulation to use materials according to the historical model when doing restorations
    - CALCIDUR®/HYDRADUR® guarantee a high degree of resistance to environmental effects and ensure durability of the mortar made from them

- **flexible and easy to handle**
  - Their advantages:
    - CALCIDUR®/HYDRADUR® translate to ductility, good water retention and easy processing of the mortar because of their high air-hardening lime content
    - CALCIDUR®/HYDRADUR® produce mortar that has optimum edge adhesion on stone

- **highly elastic**
  - Their advantages:
    - A low modulus of elasticity means optimum absorption of thermal and mechanical stresses

- **low cracking sensitivity when setting**
  - Their advantages:
    - The low cracking sensitivity when setting and natural and constant post-hardening minimize the risk of buildup of tension cracks in an effective and reliable manner
    - The self-healing mechanisms of CALCIDUR®/HYDRADUR® minimize micro-cracking in mortar

The quality of the mortar used is a decisive factor when it comes to durability of masonry. The ancient Romans knew this fact. The natural hydraulic binders CALCIDUR®/HYDRADUR® are highly effective mineral building materials that bridge the ancient world and the 21st century.

Due to their strength, workability and authentic coloring, CALCIDUR®/HYDRADUR® are compelling materials especially for the restoration of monuments that are built to last.

Top: Durable masonry with CALCIDUR®/HYDRADUR®; Bottom: Damaged masonry because of wrong binder
CALCIDUR®/HYDRADUR®
...investment in safety and strength!

The knowledge of innumerable generations of builders is collected in natural lime mortar. Its solidity and strength have outlasted historical buildings up to the present time. The Natural Hydraulic Limes CALCIDUR® (NHL2 / NHL3,5) and HYDRADUR® (NHL5), made in compliance with European building lime standard EN 459-1, are free from additives and other binders. The singular composition of binders and the special combustion method impart CALCIDUR®/HYDRADUR® with authentic properties of traditional lime mortar. CALCIDUR®/HYDRADUR® are capable of counterbalancing the mechanical loads and physical/chemical stresses of masonry on a sustained basis and minimize the buildup of cracks. Moreover, the unique elasticity of lime mortar and the low cracking sensitivity during the hardening process translate to historical buildings that endure for a long time without any defects.

“As a restorer I am faced almost daily with the fatal consequences of incorrectly used building materials in historic conservation work. For this reason, I have been relying for years on CALCIDUR®/HYDRADUR®, because I can be sure that my work will endure and my client can count on durability and investment security.”

Stefan Haustein, authorized representative and project manager of Bennert Restaurierungen GmbH

Landsberg castle, Meiningen
System solutions from Otterbein for historic conservation work and for the construction of houses under ecological aspects: natural – manifold – sustainable

**System OTTERBEIN**

**Natural hydraulic limes**

for the production of individual brick and plaster mortar mixed on site according to models of historical buildings

**System OTTERBEIN**

**CALCEA® lime plaster and lime coating system**

the perfectly integrated system of lime products such as base plasters, lime spatterdashing mortars, lime thermal plasters, lime fillers, lime paints, lime slurries as well as lime glazes

**System OTTERBEIN**

**CAREMA® lime-clay plasters**

are a unique combination of the advantages of a pure lime plaster with the natural colouring of a clay plaster

**System OTTERBEIN**

**HISTOCAL® traditional lime renders and mortars**

without cement, on the basis of natural hydraulic lime NHL for the renovation and restoration in historic building conservation work