



Whoever bets on 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!

ZEMENT- UND KALKWERKE

OTTERBEIN





CALCIDUR® HYDRADUR®

Natural hydraulic lime according to
European building lime standard EN 459-1

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

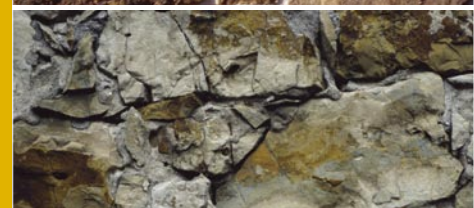
✓ low cracking sensitivity when setting

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



© by Olaf Bönicke



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left to right: Köpenick castle, Berlin;
Neuschwanstein castle, Bavaria;
Bad Hersfeld monastery ruins, Hessen

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.

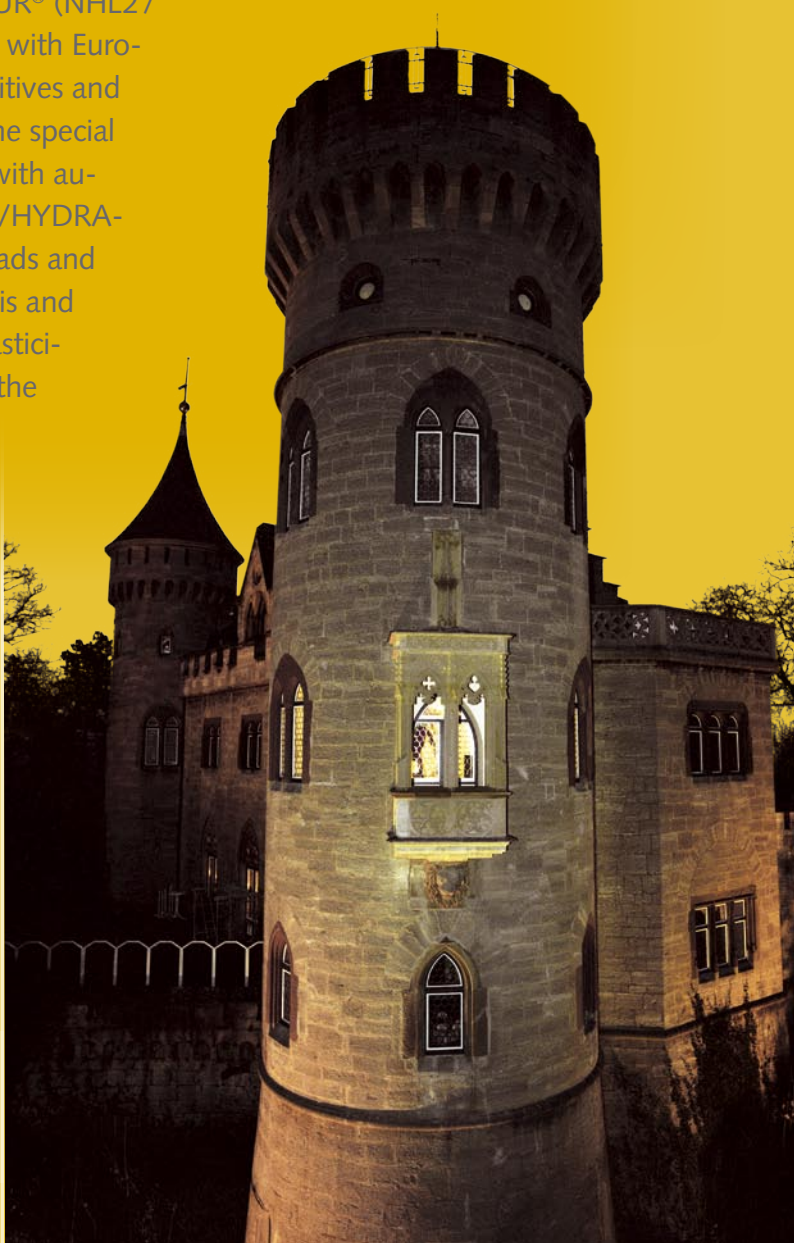
"As a restorer I am faced almost daily with the fatal consequences of incorrectly used building materials in historic conservation work. For this reason, I have been relying for years on CALCIDUR®/HYDRADUR®, because I can be sure that my work will endure and

my client can count on durability and investment security."

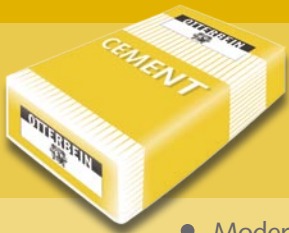


Stefan Hausteine,
authorized
representative and
project manager of
Bennert Restaurie-
rungen GmbH

Landsberg castle,
Meiningen



System solutions from OTTERBEIN natural – versatile – enduring



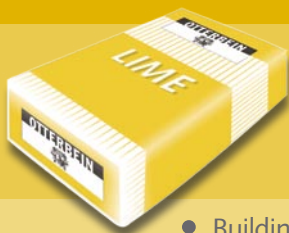
System OTTERBEIN Cements

- Modern binder for buildings and concretes that win you over because of their durability and aesthetics
- Product safety based on modern technology and high quality standard
- Innovative cement products for an inexhaustible range of creations



Everything from one source -
our unique line of products

- Portland, composite and limestone cements
- Trass and blast-furnace cements
- Binder mixtures
- Limes for building and environmental protection
- Natural limes for agriculture and forestry
- Crushed limestone sands and limestone flour

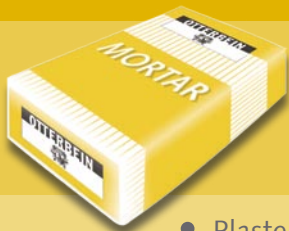


System OTTERBEIN Limes

- Building limes with the most varied compositions and properties
- Trend-setting industrial and environmentally friendly limes for clean air and pure water
- Quick limes and carbonated limes with diverse uses in agriculture and forestry



- Interior and exterior plasters, heat-insulating and composite systems
- Masonry and adhesive mortars
- Cement and anhydrite screeds



System OTTERBEIN Plasters / Mortars

- Plaster and mortar solutions for construction, historic conservation work and restoration
- Environmentally friendly and sensible interior and exterior plasters for better quality of life
- Construction that is conducive to health using natural mineral mortars



WE BRING STONE
TO LIFE