SECIL TEK

ISOVIT

IWI / EWI SYSTEMS

LIME



FIBRE REINFORCED FIXING AND LEVELLING MORTAR FORMULATED EXCLUSIVELY ON A NHL BASIS

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INTRODUCTION

FOUNDED IN 1891, SECILTEK IS A COMPANY ENGAGED IN THE DEVELOPMENT AND PRODUCTION OF NEW BUILDING MATERIALS.

As part of the Secil Group, one of the main national industrial groups, SECILTEK has always been a leading company throughout its history, being a pioneer in the production of Natural Hydraulic Lime (NHL) and industrial dry mortars in Portugal.

Hydraulic lime has been used as a binder in construction for hundreds of years. Secil has a millennial tradition in its production, which in time evolved to Natural Hydraulic Lime (NHL).

Through research and development in the manufacturing process, we have been able to create a traditional binder suitable for modern needs. Natural Hydraulic Lime (NHL) is the binder chosen for the renovation and restoration of old buildings, as it respects the original material. Due to its excellent workability and easy application, designers and operators have begun to reintroduce this binder in modern construction. Preserving the past is as important as caring for the future.

SECILTEK currently offers a wide range of products and solutions which meet the high requirements of construction, such as the durability of materials, the technical performance of solutions, high performance in application and increased energy and environmental performance of buildings.



Maceira Production Unit





SECIL NHL

NHL 2, NHL 3,5 and NHL 5 PURE NATURAL HYDRAULIC LIME

Hydraulic lime is a binder that has been successfully used in construction for hundreds of years.
It stands out for setting and achieving mechanical strength when in contact with water. Carbon dioxide existing in the atmosphere also contributes to its setting process. Nowadays, new natural hydraulic limes are commonly called NHL (Natural Hydraulic Lime). Pure NHL limes are distinguished by their unique features, thus becoming the chosen binder for the renovation of old buildings and in sustainable construction.

IN RENOVATION

Mortars prepared with Secil NHL natural hydraulic lime are particularly suitable for the renovation of old buildings due to their exceptional properties that ensure total compatibility with this type of substrate. Features such as elasticity, permeability to water vapour, resistance to salts and the moderate development of mechanical resistance over time guarantee excellent preservation of the historical heritage.

IN SUSTAINABLE CONSTRUCTION

Natural hydraulic lime requires less energy in its production and therefore releases less CO_2 compared to other binders. It is a breathable and durable material, with the unique ability to absorb CO_2 by carbonation of its free lime content. Mortars produced with NHL natural hydraulic lime are recyclable products.

SECIL NHL 2, NHL 3,5 and NHL 5

Secil Natural Hydraulic Lime is produced at the Maceira factory, located in the centre of Portugal. For over 130 years the traditional production techniques of this factory have been passed down from generation to generation. This long experience, combined with rigorous quality control, ensures Secil unrivalled knowledge in natural hydraulic lime, proven by the thousands of works already supplied.

Presently, Secil produces three types of pure natural hydraulic lime: NHL 2, NHL 3,5 and NHL 5. They all comply with the latest specifications of the European Standard EN 459-1:2011.

ADVANTAGES

- Purity (100% natural, free of additions)
- Total physical and chemical compatibility with old substrates
- Gradual development of mechanical resistance
- Excellent workability
- High water vapour permeability
- High free lime content
- Good elasticity
- Applicable on different types of substrates (brick, blocks, wood, concrete, adobe)
- In accordance with standard EN 459-1:2011
- Recyclable and sustainable material





APPLICATIONS

- Renders for the renovation of old buildings
- Mortars for Sustainable Construction
- Mortars for joint repointing in stone masonry
- Decorative finishes
- Manufacture of bricks or other construction products
- Mortars for brick or block laying
- Screed mortars
- Lime concrete
- Injection grouts
- Soil treatment



RESEARCH & DEVELOPMENT

The high investment that SECILTEK makes every year in the research and development of new products is the result of its strategy to conceive innovative products, technologically advanced, which contribute to better sustainability and efficiency in construction.

The planet will experience an increase in the number of heat waves, floods and droughts, which is one of the reasons to adapt and improve our resilience to these climate changes.

ISOVIT LIME mortar is therefore the result of the need to develop sustainable and renewable solutions in the construction market, which is starting to use thermal insulation solutions in a more responsible way.

We need to construct buildings which do not overheat easily, which do not require major heating and cooling efforts as well as buildings which are comfortable and healthy spaces to live in.

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SHAPING IDEAS

ISOVIT LIME

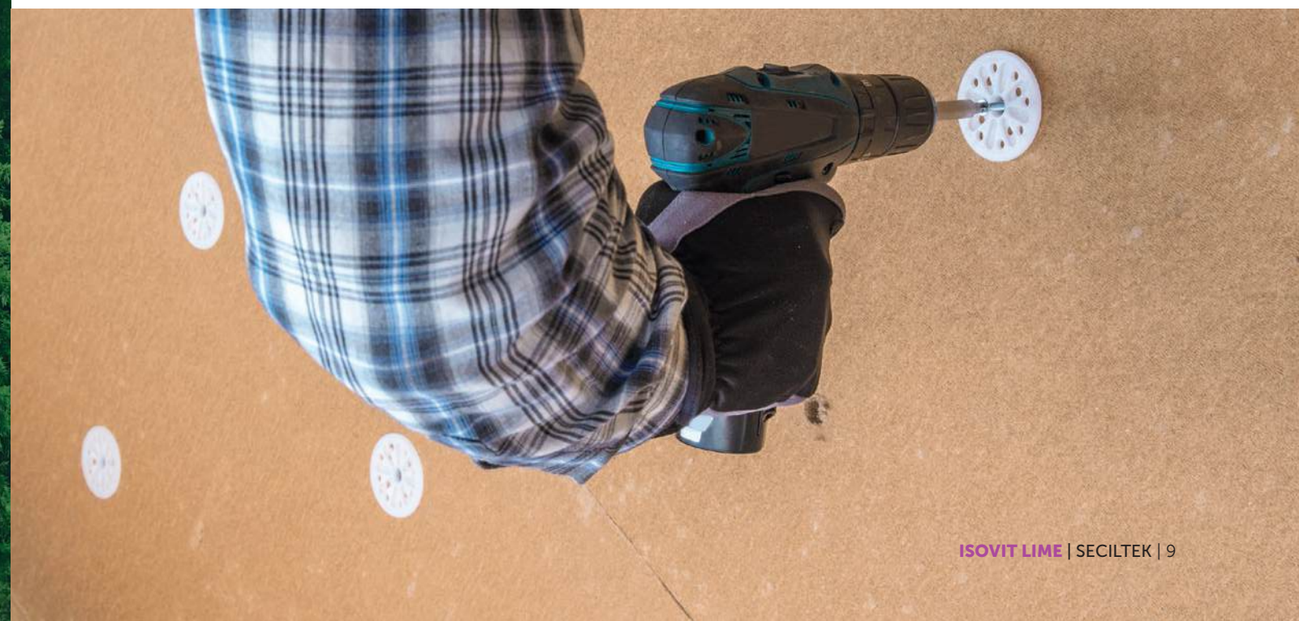
FIBRE REINFORCED FIXING AND LEVELLING MORTAR FORMULATED EXCLUSIVELY ON A NHL BASIS

ISOVIT LIME mortar is a fixing and surface levelling mortar in IWI / EWI systems or in reinforced skimming for renovation on old substrates, exclusively formulated with Natural Hydraulic Lime.

With a clearly superior ductility and an ability to withstand higher tensions, this mortar with NHL Natural Hydraulic Lime also has a low resistance to water vapour permeability, taking advantage of the full potential of the thermal insulation panels used (MW, ICB, Wood fiber).



- COMPATIBLE WITH DIFFERENT SUBSTRATES: MW, ICB, WOOD FIBER PANELS
- HIGH VAPOUR PERMEABILITY
- BREATHABLE
- HIGH ADHESION
- 100% LIME (NHL) BASED
- HIGH ENVIRONMENTAL PERFORMANCE

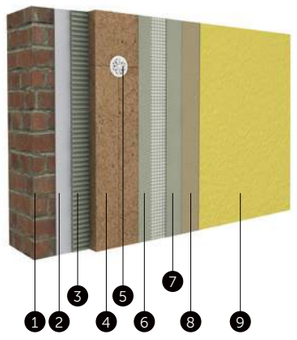


ISOVIT WF (WOOD FIBRE) **IWI / EWI**

For EWI/IWI systems, **ISOVIT LIME** can be a good element to be used as a fixing and levelling mortar, being made of NHL Natural Hydraulic Lime, ensuring a perfect compatibility and reinforcement of WOOD FIBRE panels, complementing **REABILITA CAL AC**, a 100% Natural Hydraulic Lime NHL-based finishing mortar.

Panels used in these systems have a good capacity on water vapour breathability, which contribute to a healthy indoor environment. Its low thermal conductivity promotes high energy efficiency, thus contributing to economic and environmental savings.

APPLICATION SCHEME



ADVANTAGES

- Excellent thermal and acoustic performance
- Applicable on old substrates or modern construction
- Fine sanded finish
- High vapour permeability
- Lime-based mortar system
- High environmental performance

LEGEND

1. Substrate
2. Natural hydraulic lime levelling render **REABILITA CAL EASY R**
3. **ISOVIT LIME** fixing and levelling mortar
4. Insulation **WOOD FIBRE PANEL**
5. **ISOVIT BUCHA/ANCHOR** mechanical fixing
6. **ISOVIT LIME** fixing and levelling mortar with **ISOVIT REDE/MESH 160/343** reinforcement mesh
7. **ISOVIT LIME** fixing and levelling mortar
8. **REABILITA CAL AC** fine sanded finishing mortar
9. Silicate paint scheme: **ISOVIT AD 25** + **ISOVIT REV SP**

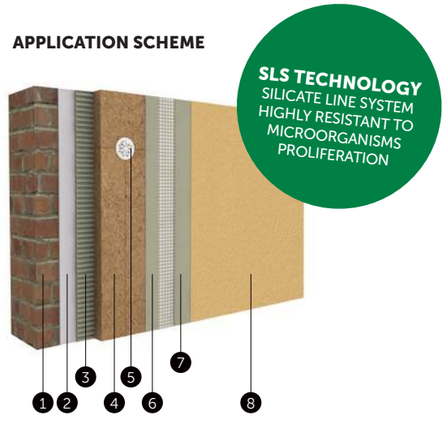
MAIN PRODUCTS USED



ISOVIT WF (WOOD FIBRE) **SLS SYSTEM**

SILICATE LINE SYSTEM is a coating technology composed by fibre-reinforced inorganic mortar and silicate-based finish with excellent vapour permeability, marble granules added and highly resistant to microorganisms proliferation. It's available in various colors with textured finish.

APPLICATION SCHEME



ADVANTAGES

- Mould and algae resistance
- Improves durability
- Maintains its colour

LEGEND

1. Substrate
2. Natural hydraulic lime levelling render **REABILITA CAL EASY R**
3. **ISOVIT LIME** fixing and levelling mortar
4. Insulation **Panel WOOD FIBRE**
5. **ISOVIT BUCHA/ANCHOR** mechanical fixing
6. **ISOVIT LIME** fixing and levelling mortar with **ISOVIT REDE 160/343** reinforcement mesh
7. **ISOVIT LIME** fixing and levelling
8. Silicate paint scheme: **ISOVIT AD 20 SLS** + **ISOVIT REV SLS**

MAIN PRODUCTS USED

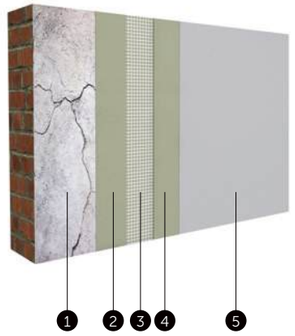


ISOVIT LIME
FIBRE REINFORCED FIXING AND LEVELLING NHL-BASED MORTAR

REPAIRING OF CRACKED RENDER (IWI / EWI)

For repairing cracked renders, **ISOVIT LIME** may be used, being able to perform fine sanded finishes or a smooth finish in existing substrates. This solution does not require the removal of the damaged render and is easy to apply.

APPLICATION SCHEME



LEGEND

1. Painted and cracked existing façade
2. **ISOVIT LIME** (skimming)
3. **ISOVIT REDE 160**
4. **ISOVIT LIME** (skimming)
5. **ISOVIT AD 20 SLS** + **ISOVIT REV SLS**

ADVANTAGES

- Does not require removal of the damaged render
- Micro-cracking coverage
- Fine sanded finish
- Includes Natural Hydraulic Lime (NHL)
- High adhesion

MAIN PRODUCTS USED



TECHNICAL DATA SHEET OF THE PRODUCT

ISOVIT LIME	
USE	Fibre reinforced fixing and levelling mortar for old substrates with high permeability.
PARTICULAR PROPERTIES	Formulated from mixed binders and exclusively based on Natural Hydraulic Lime.
SUBSTRATES	Wood fibre (WFB), black agglomerated cork (ICB) and mineral wool (MW).
FIELD OF APPLICATION	Exteriors and Interiors
TYPE OF WORKS	New construction or Renovation
APPLICATION	Manual
RECOMMENDED THICKNESS	4mm (minimum)
THEORETICAL CONSUMPTION	3.0 to 5.0 kg/m² – fixing 1.2 kg/m²/mm– levelling
THERMAL CONDUCTIVITY (λ10,DRY)	0,45W/m.°C (P=50%)
EC BRANDING	EN 998-1
PACKAGING	20kg bags Pallets of 60 bags



SECILTEK
Apartado 2, 2406-909 Maceira LRA
PORTUGAL

Tel.: +351 244 770 220
Fax: +351 244 777 997

comercial.seciltek@secil.pt
www.secil.pt

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