
THERMAL
SHIELD
Yapınızın Termal Kalkanı
EKOLOJİK
TERMAL SIVA
ECOLOGICAL THERMAL PLASTER
CE
14 ±%2 KG
THERMAL
SHIELD
EKOLOJİK
TERMAL SIVA
ECOLOGICAL THERMAL PLASTER

THERMAL SHIELD

NEW GENERATION

Composite Plaster Mortars

"Energy Efficiency and Its Future"

THERMAL SHIELD

- What is Insulation Plasters?
- What is the Future and Importance of Insulation Plasters?
- What is the Added Value of Insulation Plasters to the Economy?
- What are the Advantages of Insulation Plasters?
- Why Are Ecology, Hygiene and Fire Resistance Are Much Discussed?

What is Insulation Plaster?

Brick, aerated concrete, pumice, briquette wall etc. on interior and exterior walls. It is a cement-based composite plaster mortar that can be applied to surfaces, provides adhesion and easy application, is formed by supporting natural raw materials, provides heat, water, sound and fire insulation, and can be applied with a cement-based steel trowel or machine.

What is the Future and Importance of Insulation Plasters?

It is equivalent to the life of the building, it is not aging, environmentally friendly, economical and also prevents the energy in the environment from going out, and also minimizes the cold air, noise and humidity that may come directly from the outside. Fireproof, non-flammable adds value to what you care about. In short, it protects you and your loved ones safely.

What is the Added Value of Insulation Plasters to the Economy?

Insulation is not an expense, but an investment that contributes to health, comfort and environmental cleanliness. The insulation cost is between 3% and 5% of the building construction cost. Old buildings have an average cost of 200/ 250 TL m2. However, it should not be forgotten that as an investment that pays for itself in a very short time by reducing the heating and cooling costs by at least half, and then providing savings and comfort by spending less life for the consumer.
should be detected.

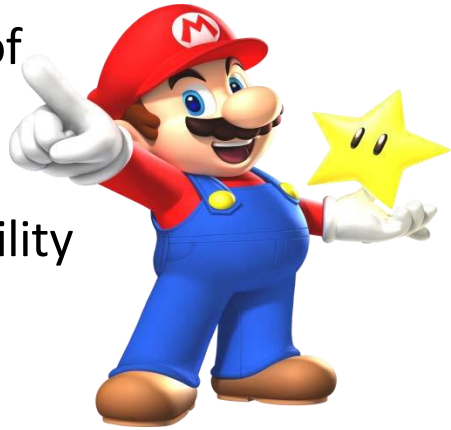
What are the Advantages of Insulation Plasters?

It provides heat, water, sound and fire insulation in a single product. It is lightweight, it does not add additional load to the building. It prevents sweating, mold and moisture thanks to its breathability feature. It provides significant savings in heating and cooling costs. It does not do, it is not destroyed by microorganisms. It has a life equivalent to the building. It provides labor and time saving with its easy application feature. It is suitable for use in all seasons

. Why Are Ecology, Hygiene and Fire Resistance Are Much Discussed?

Let's remember the basic requirements of the Building Materials Regulation:
(1) Mechanical strength and stability (2) Safety in case of fire (3) Hygiene, health and environment (4) Safety of use
(5) Protection against noise (6) Energy saving and heat preservation

THERMAL SHIELD : It is a composite plaster mortar formed by the combination of approximately 15-16 different aggregate metals.



THERMAL SHIELD : Resistant to 1100˚C heat and complies with A1 non-flammability standard.

THERMAL SHIELD : provides heat, sound, water and fire insulation
It is a specially developed composite mortar of inorganic origin that allows the building to breathe.

THERMAL SHIELD : compressive strength class is CSII and its value is 2.2 N / mm^2.

THERMAL SHIELD : provides approximately 22 db sound insulation in 2cm application.

THERMAL SHIELD : is 2 cm thick and the load imposed on the building is 1m^2 5kg.

THERMAL SHIELD : is a special product that allows the building to breathe thanks to its inorganic structure and has a life as long as the building's life.

THERMAL SHIELD IS A SPECIAL PRODUCT

THERMAL SHIELD insulation plaster;

It is not harmful to health because it is produced from sterile and natural materials.

It offers quality life in spaces thanks to its breathing feature.

Provides excellent insulation in hot and cold weather.

It has water repellency.

It does not contain carcinogenic substances.

It is natural and does not harm the environment.

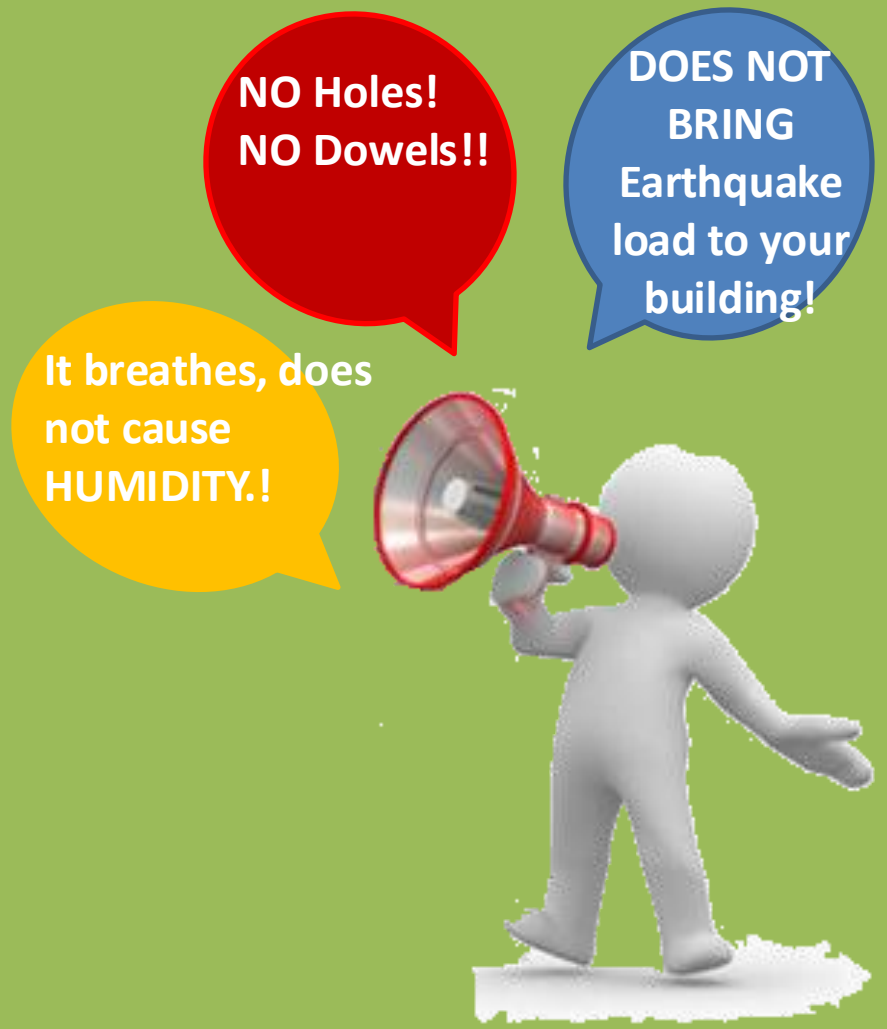
It does not create a thermal bridge.

It provides a superior sound insulation.

It provides excellent adhesion on all kinds of surfaces, comfort in application and time saving.

It does not emit greenhouse gases.

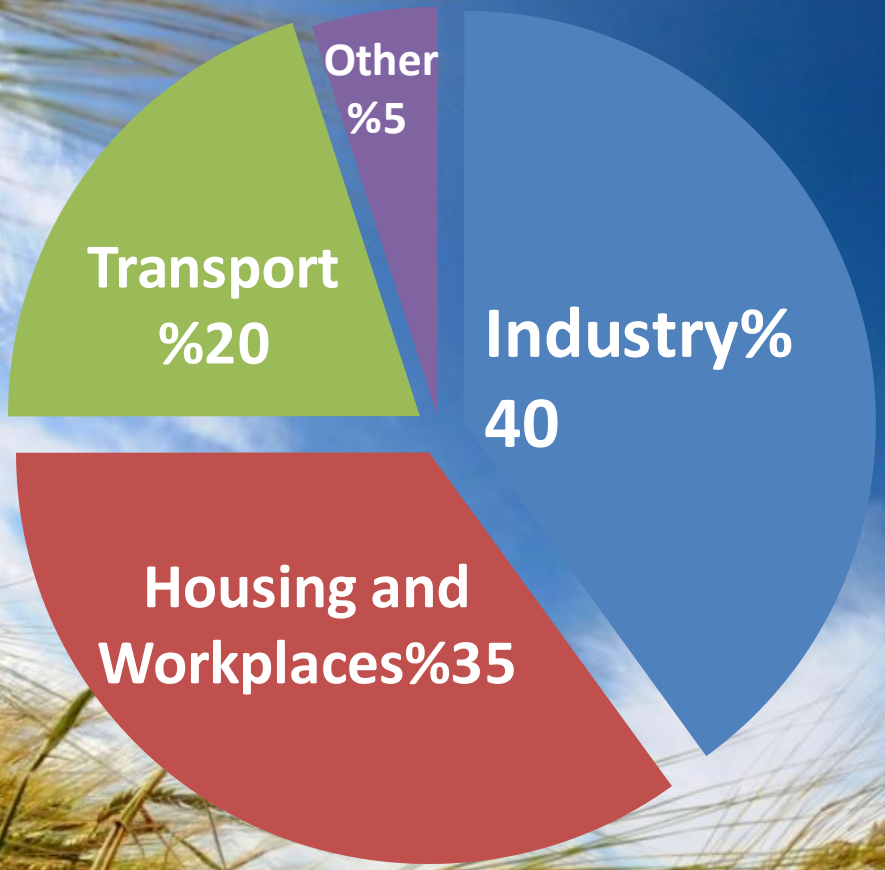
It is long-lasting and ages with the building.



IT HAS ECONOMIC ADVANTAGE

- It provides heat, water, sound and fire insulation in one product.
- It is light and does not impose additional load on the building.
- Thanks to its breathability, it prevents perspiration, mold and moisture.
- It provides significant savings in heating and cooling costs.
- Its easy application takes place with special additives.
- It does not corrode and rust and is not destroyed by microorganisms.
- It has a life equivalent to the building.
- It saves labor and time with its easy application feature.
- It is suitable for use in all seasons.

Energy Consumption Distribution



URBAN TRANSFORMATION ?

URBAN TRANSFORMATION

Urban transformation is a part of the city or a significant part of it.
Within the scope of the project, systematically determining the risk values of the existing building stocks against possible earthquakes and the risk values of the soil ground and the structure on it, taking into account the possibility of collapse in a possible earthquake and damaging other structures in the surrounding area, by taking the risky soil ground and risky structures out of use, It is one of the public works carried out to construct buildings and thus minimize the loss of life and property that may occur in possible earthquakes.
In 2012, the concept of "Urban Transformation" came to our agenda with the "Law on the Transformation of Areas Under Disaster Risk", numbered 6306, prepared by the government for earthquakes. In this law, two types of definitions are made as 'Risky Building' and 'Risky Area'. As a result of the public beginning to express the process of making risky buildings resistant to earthquakes with the concept of "Urban Transformation", the Law No. 6306 has been pronounced as the Urban Transformation Law.

NEW GENERATION THERMAL INSULATION PLASTER

Insulation

Ecology

Naturalness

Bina Yalıtımlarında

Dünyada

“DOĞAL YALITIM”

giderek önem kazanmaktadır

NATURAL INSULATION

on buildings

is becoming increasingly important

ITEMS OF ECOLOGICAL MATERIALS

ECOLOGY MATERIALS

Items

- Energy Need
- Hygiene
- Heat perforant:s and energy efficiency
- Natural Radioactivity
- Acoustic comfort and Interaction
- Breath usability and Diffusion
- Waterproofing
- Resistance

HOW TO PROVIDE INSULATION

By using a single layer of COMPOSITE PLASTER, it provides the thermal insulation values demanded by the heat regulation.

What provides this is the stagnant air trapped inside millions of pores.

Still air is one of the best heat insulators due to its low thermal conductivity. In addition, thanks to its special components, it provides an added value that further improves the technical properties of the matrix structure.

WHAT IS BRIEF?

© Containing natural mines and materials,
© Providing heat-water-sound-fire insulation with a single product,
Has the ability to breathe,
© Light,
© Life is equivalent to the building,
© Protecting the insulation values as long as it is in the building,
purpose natural insulation material.

THERMAL INSULATION COMPOSITE PLASTERS

PLACE IN THE LEGISLATION

TS EN 998-1

Standards Compliant Products

TS EN 998-1

T Group - Plaster Mortar Providing Thermal Insulation

T1 Group ► Thermal Conductivity Value **^0,10 W/mK**

T2 Group ► Thermal Conductivity Value **^ 0,20 W/mK**

Do Plasters Insulate?

Group T in TS EN 998-1 Standard - Providing Thermal Insulation due to the definition of Plaster Mortar product norms, products produced from natural materials in accordance with this category, It can be described as "Natural Insulation Plaster Mortar"..

Thermal Insulation Plasters TS EN 998-1

Thermal Conductivity Value

0,047	W/mK
0,050	W/mK
0,060	W/mK
0,070	W/mK
0,080	W/mK
0,090	W/mK
0,100	W/mK

Thermal Conductivity Value(λ) = 0.047W/mK

Dry Unit Volume Mass = 240kg/m^3

READY PLASTER MORTAR FEATURES

HEAT INSULATED COMPOSITE PLASTER

TS EN 998-1

Technical Advantages

What ?

Unit Weight Pressure Strength Adhesion Strength Water Absorption Heat Insulation Humidity and Diffusion Fire Resistance

Unit weight

Set Plaster Mortar 240 kg/m³

In a residential building,

On 1000 m2 Surface area

10 Tons Lighter

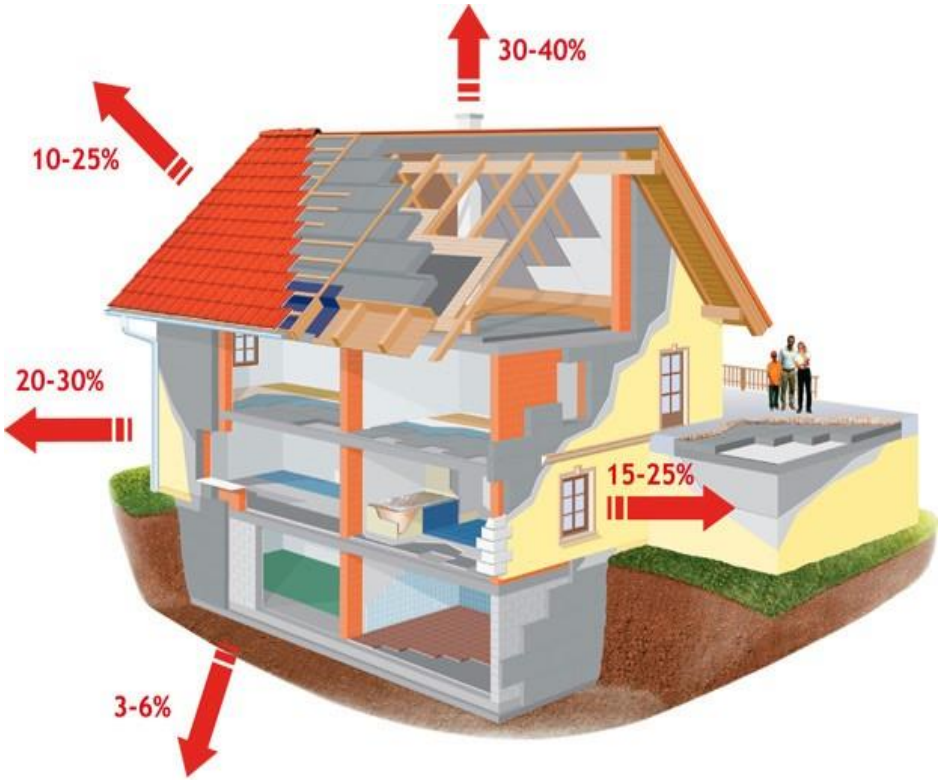
Basınç dayanımı

CS I

CS II

0,5 – 1.2 N/mm²


Water Impermecance
Su Geçirimsizlik
W1 ≤ 0,40 kg/m² min^0.5



Yalıtımsız Binanın Isı Kaçakları

High Thermal Comfort

λ = 0.047 W/mK

240 kg/m³

T1 Group Plaster Mortar

In category

High Acoustic Property

Loss of Audio Crossing for 500 Hz

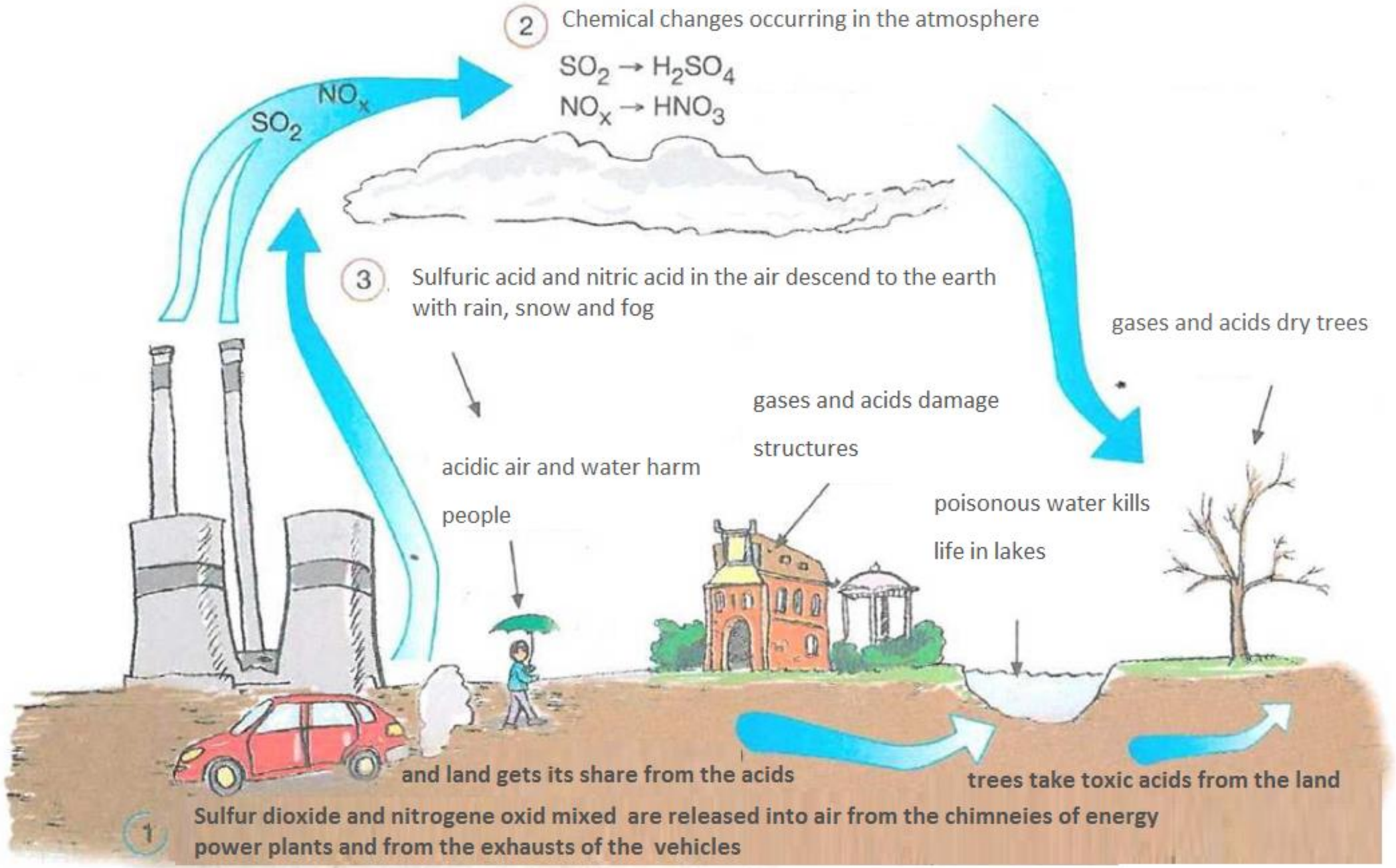
22 dB

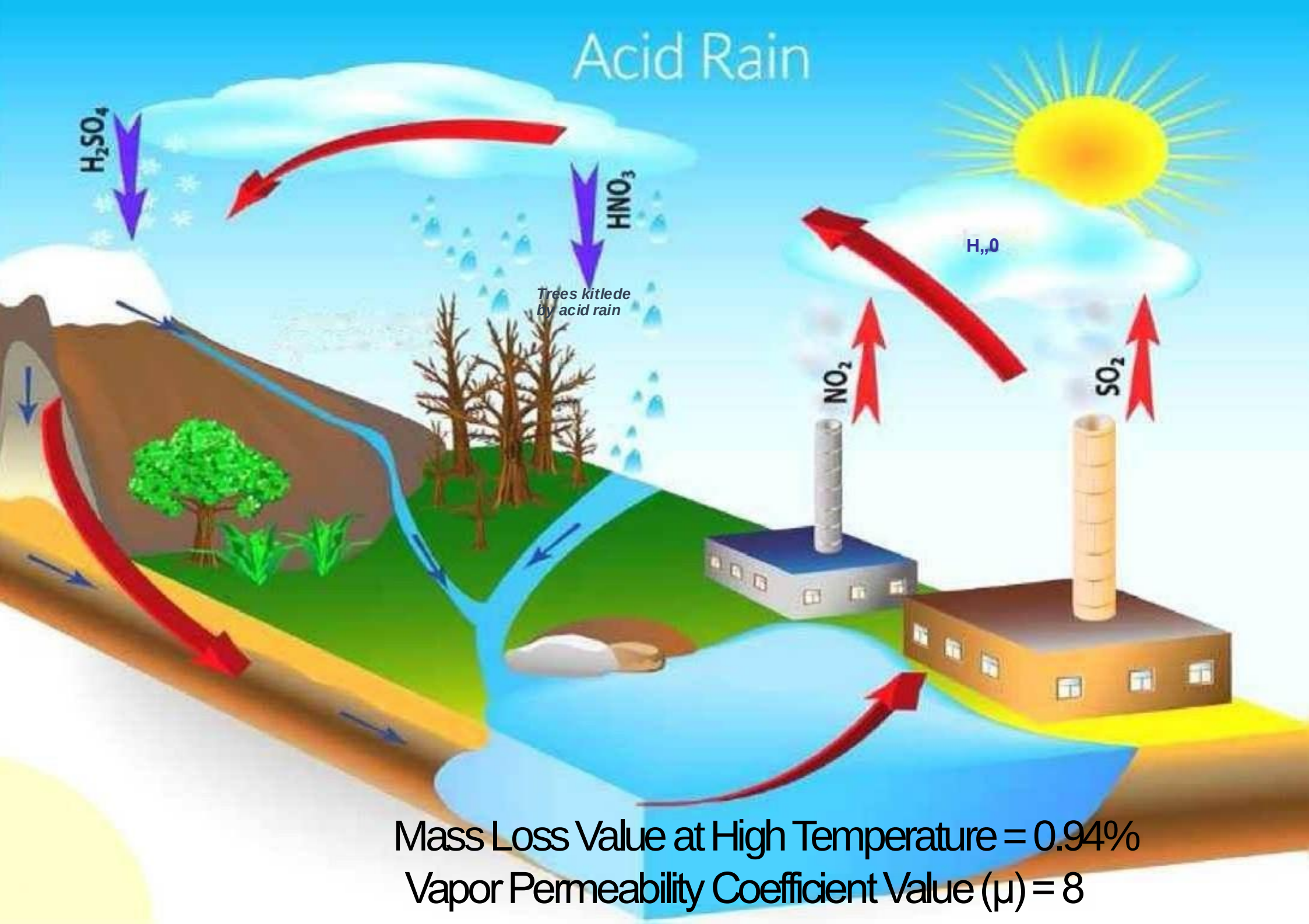
DURABILITY

(Resistance to Atmospheric Conditions)

ECO SYSTEM

Acid Rain **(Resistance to Ambient Conditions)**



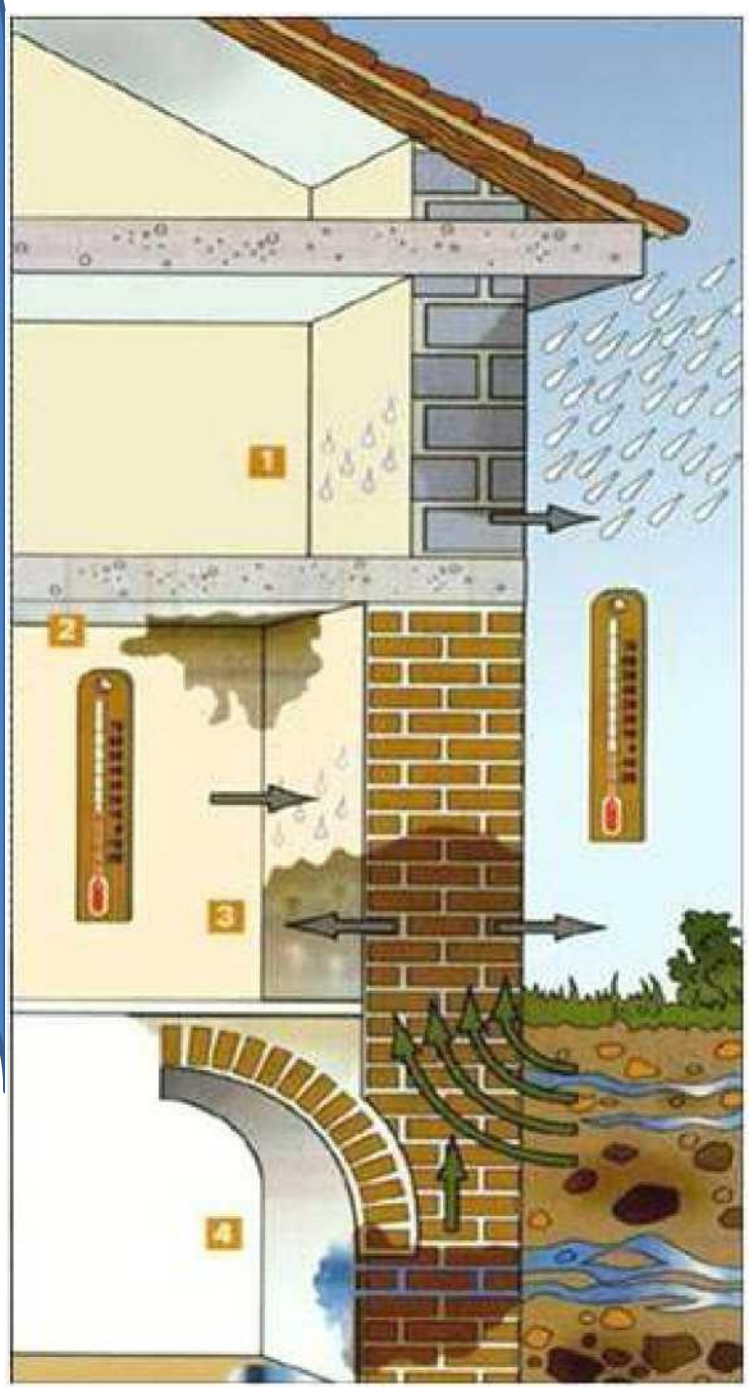


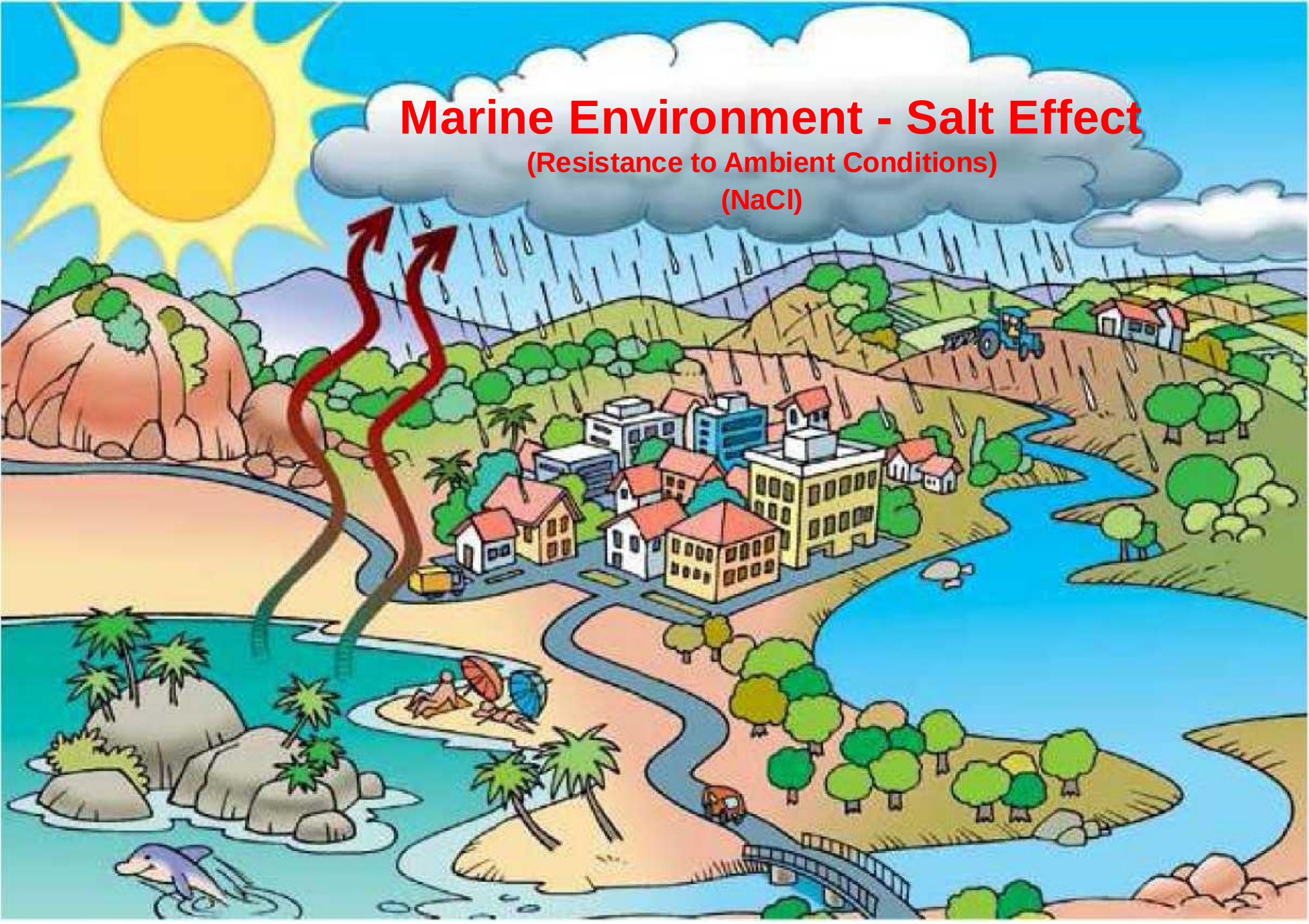
Mass Loss Value at High Temperature = 0.94%

Vapor Permeability Coefficient Value (μ) = 8


Ground Water Effect
(Resistance to Ambient Conditions)
(Na_2SO_4)

High Mass Loss Value at emperature 0.94%




Marine Environment - Salt Effect
(Resistance to Ambient Conditions)
(NaCl)


A

IN FIRE ROLE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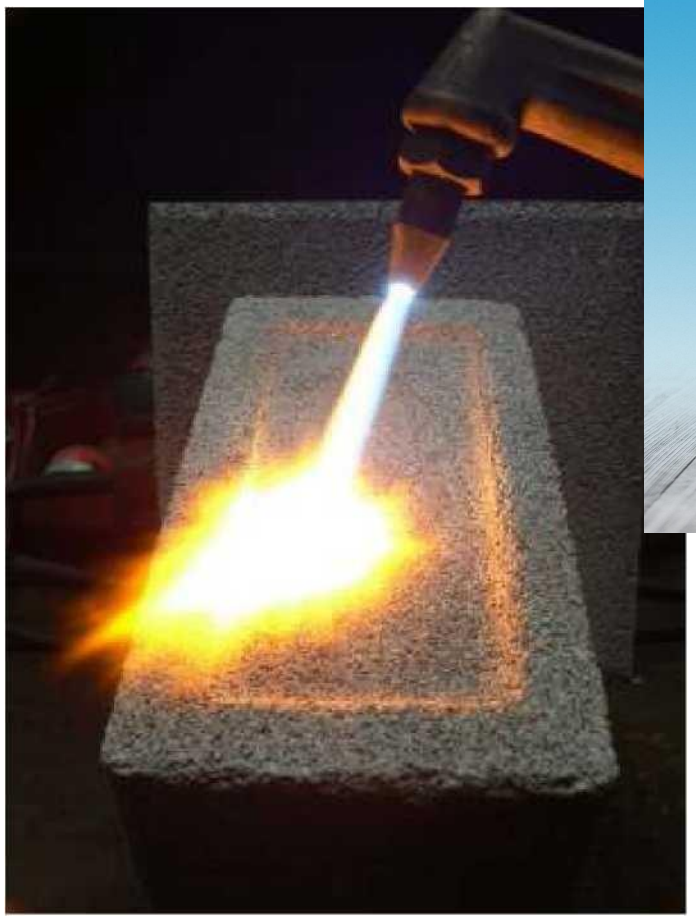
FIRE RESISTANCE

TOXIC GAS-SMOKING AND SOOT ensures life safety by not removing



It is fire resistant up to 1.100 Degree Celcius. Therefore, it protects the building against fire.

ACCORDING TO TS EN13820 Class A1

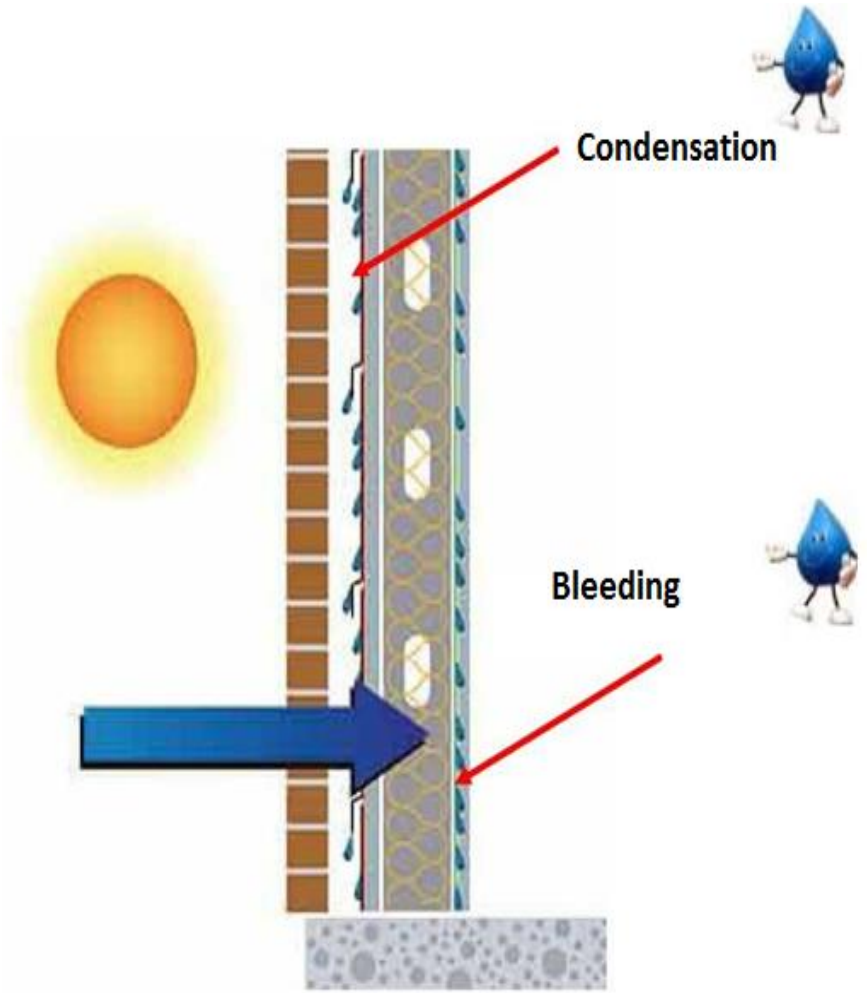
According to DIN 4102 Standard (Resistance to 1100 Degree Celcius)

1 cm thick ► 

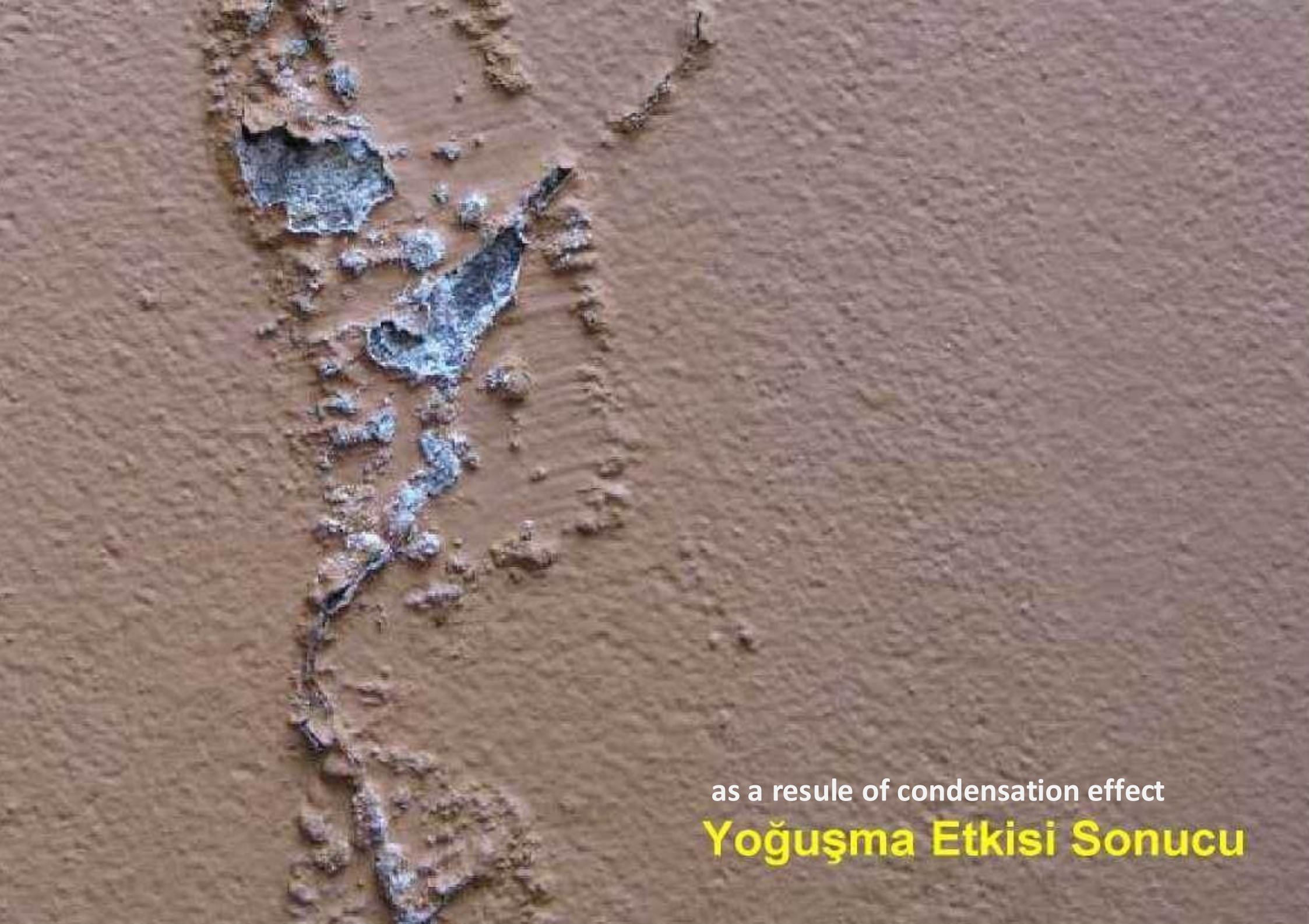
2 cm thick ► 

BREATHABLE
(Vapor Diffusion Resistance Coefficient)

$$\mu = 8$$



Condensation on the Wall – Bleeding (Sweating) occurs on the Inner Surface!


as a resule of condensation effect
Yoğuşma Etkisi Sonucu

Sweating Effect Result

Terleme Etkisi Sonucu

In the Use of Thermal Insulation Plaster

Application without anchors without holes

NO DRILLING the concrete carcass of the building ...

6 dowels on 1 m2 surface

6000 pieces of wall plugs on 1000 m2 surface

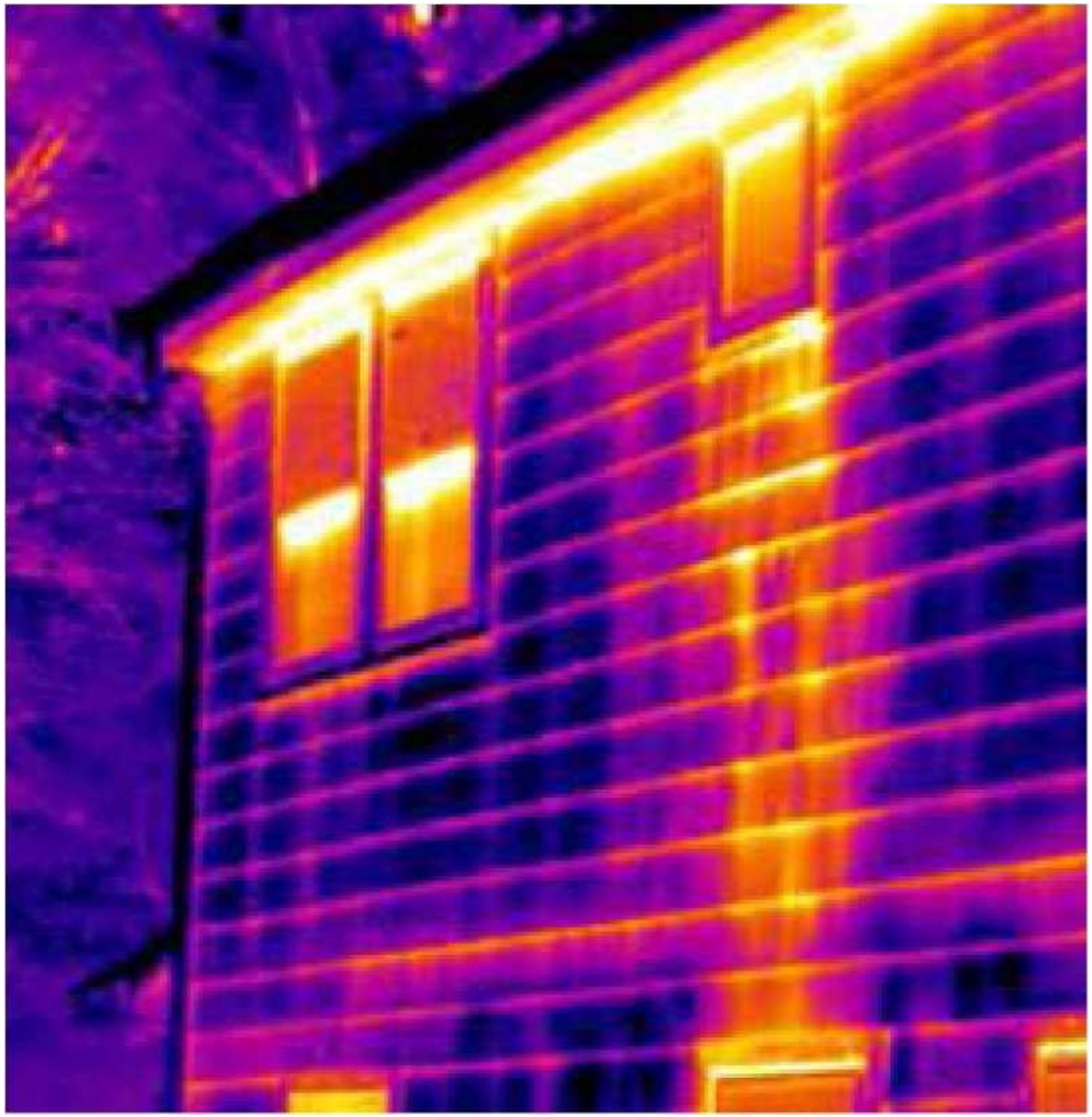
If we assume that 2 minutes are spent to drill-anchor per anchor,

6000 x 2 = 12 000 minutes = 200 hours of labor

Extra 2 days with 6 workers

5 extra days with pier

THE GENERATION OF HEAT LOSSES IN A SHEATHED BUILDING

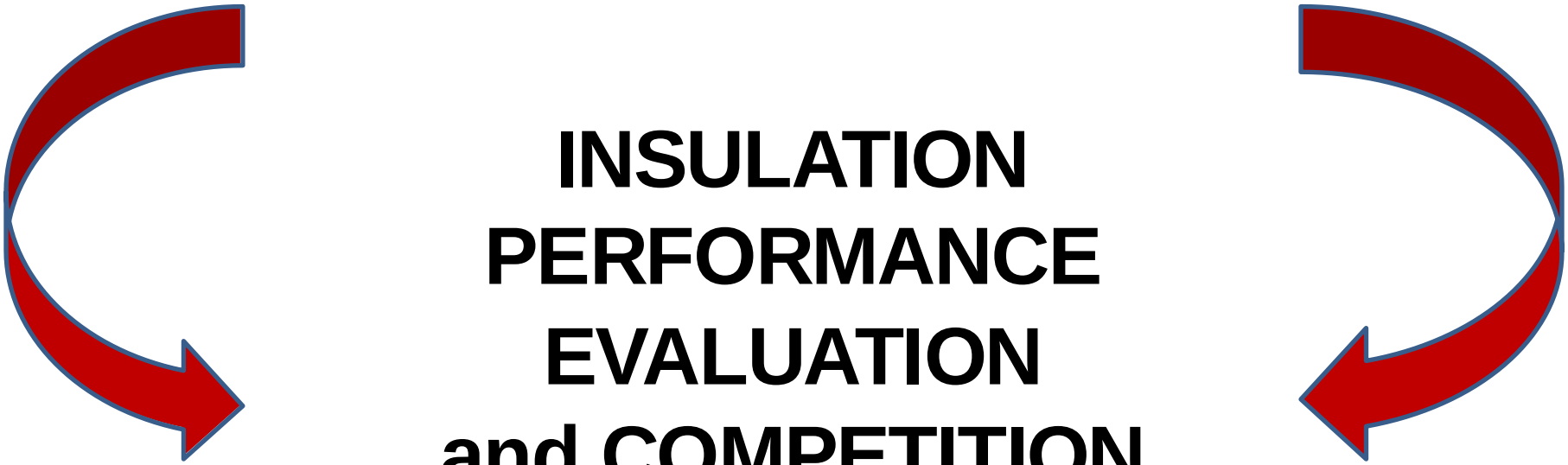


THERMAL PERFORMANCE OF INSULATION IN AN EXISTING BUILDING

Before Insulation

After Insulation

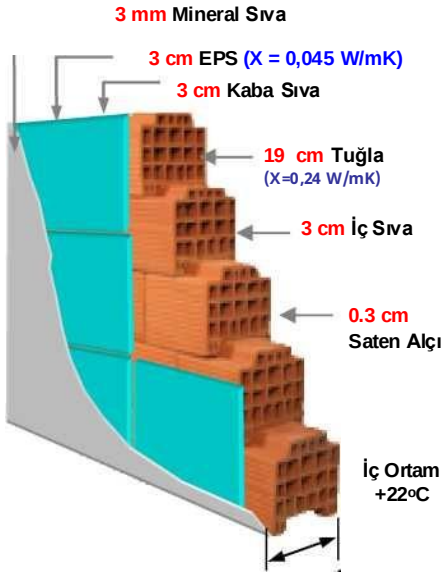
OF DIFFERENT BUILDING MATERIALS
When Used With New Generation Plasters



INSULATION PERFORMANCE EVALUATION and COMPETITION

On Brick Walls

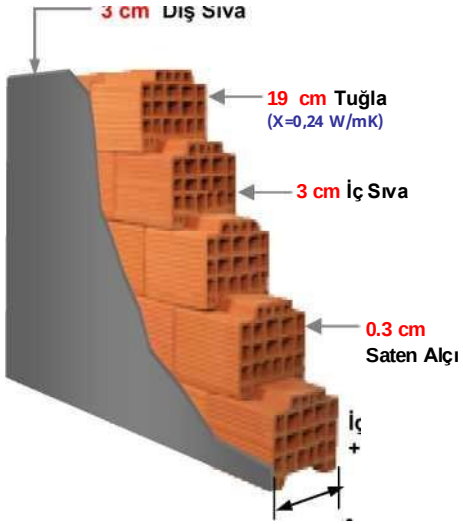
Poly. Cover



R= 1,687 m²K/W

U= 0,593 W/m²K

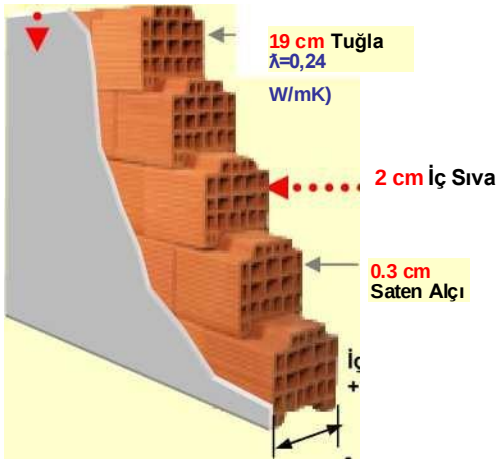
Traditional plaster



R= 1,018 m²K/W

U= 0,982 W/m²K

1cm Insulated plaster (λ= 0,047 W/mK)



R= 1,780m²K/W

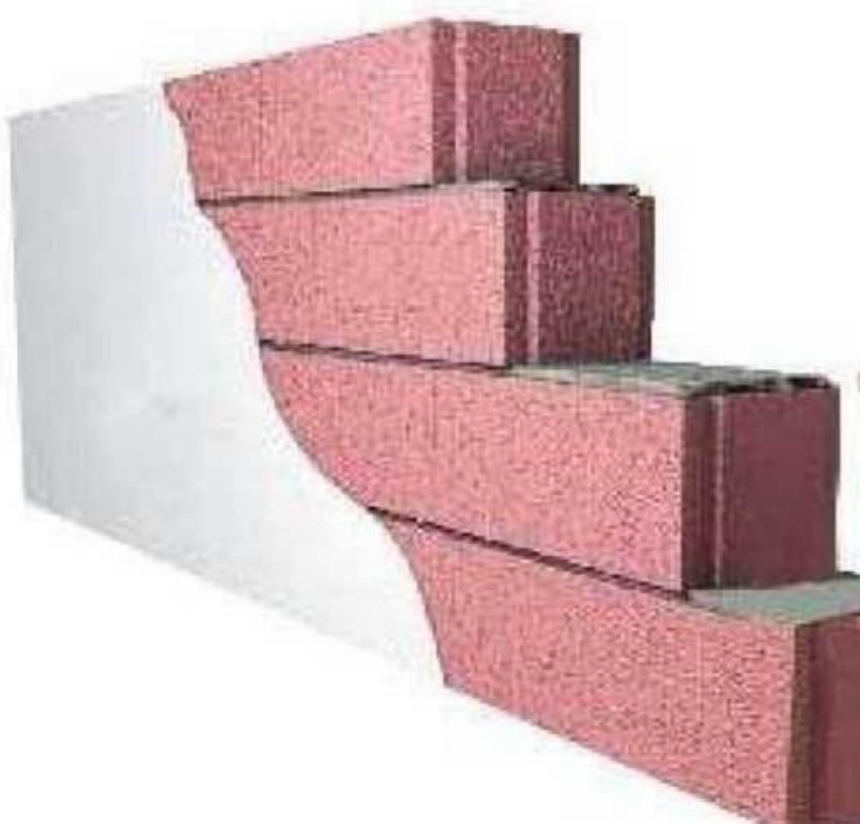
U= 0,459 W/m²K

Energy Efficiency of Insulated Plaster :

Compared to Traditional Plaster -

► 48.3% Compared to EPS

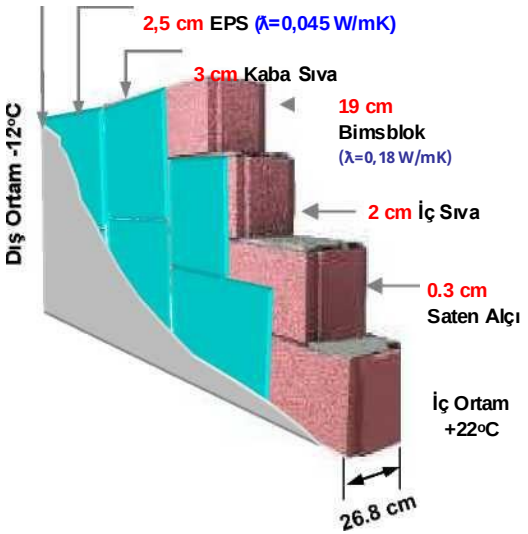
Sheathing -► 14.4%



Bimsblock on the walls

Poly. covering

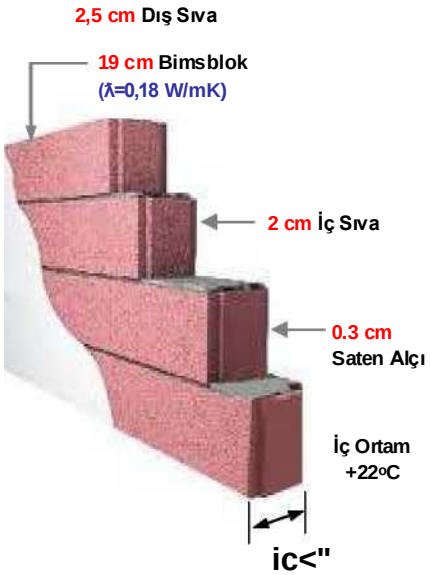
3 mm Mineral Sıva



R= 1,838 m²K/W

U= 0,544 W/m²K

Traditional Plater

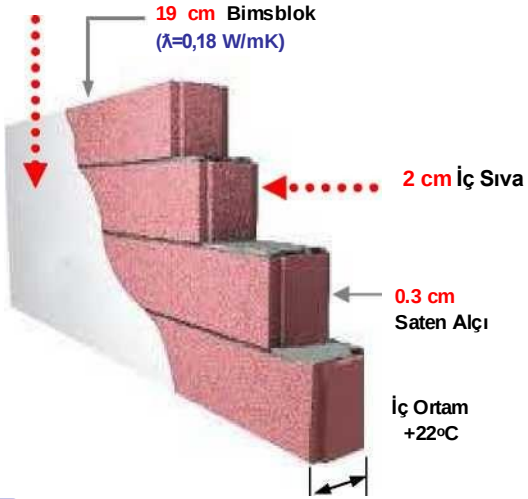


R= 1,278 m²K/W

U= 0,783 W/m²K

1 cm Thermal Shıeld insulation plaster

(λ= 0,047 W/mK)



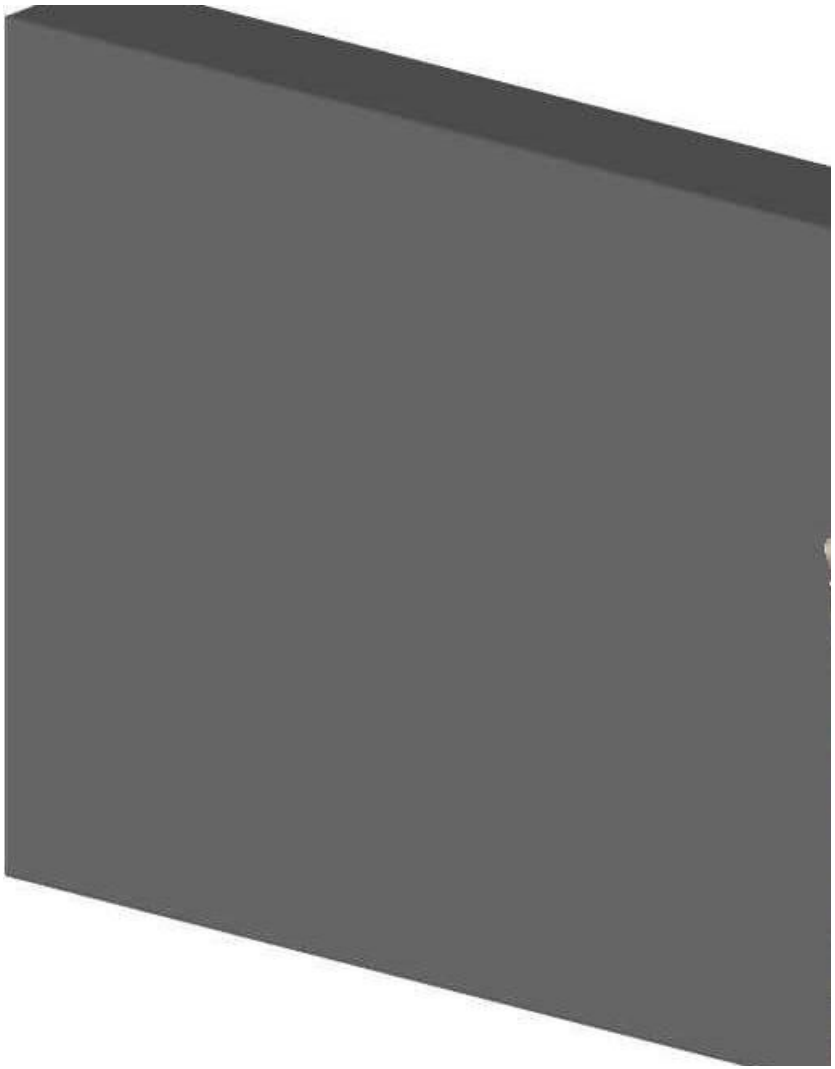
R= 1,934 m²K/W

U= 0,423 W/m²K

Energy efficency of insulated plaster:

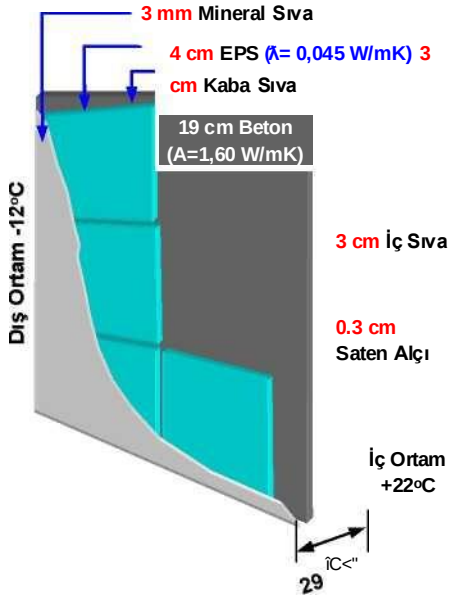
According to traditional plaster ► %40.1

According to polly cover ► %13.9



In the Tunnel Formwork System On Concrete Walls

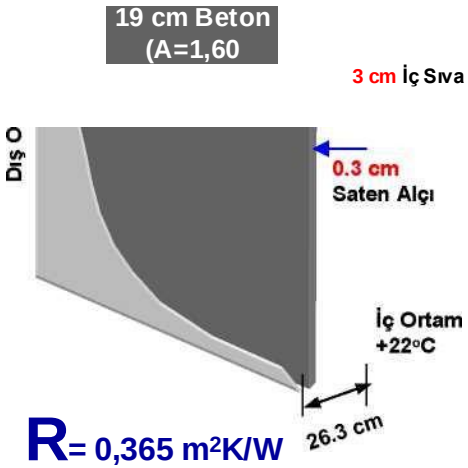
Poly Covering



R= 1,246 m²K/W

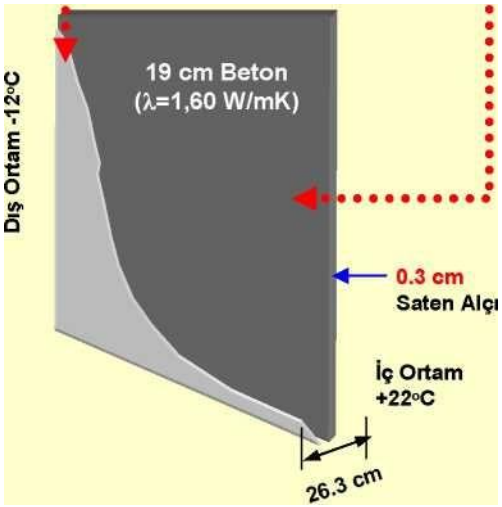
U= 0,803 W/m²K

Traditional Plaster



R= 0,365 m²K/W

U= 2,739 W/m²K



R= 1,533 m²K/W

U= 0,532 W/m²K

Energy efficency of insulation plaster:

According to traditional plaster **%78,5**

According to poly. cover * **%26,6**

THERMAL SHIELD

THERMAL SHIELD : is a plaster applied insulation material produced to provide protection against heat, sound, water and fire in buildings and to prevent the formation of moisture, mold and perspiration. When applied to the interior and exterior surfaces of buildings **THERMAL SHIELD :** saves up to 70% while protecting living spaces against all natural atmospheric conditions. Thanks to its **THERMAL SHIELD** air permeability, it provides a more livable atmosphere in living spaces by taking the static air inside to the outside without heat loss. **THERMAL SHIELD :** provides natural protection against water and rain thanks to the mines in it. Thanks to this feature, it also prevents mold, moisture and sweating in the brick and ir sections on the inner surface as it does not absorb water into the buildings

THERMAL SHIELD : is a plaster that can give a satin appearance with its fine structure, which can be applied on the interior surface without the need for plaster. When applied 1cm from the outside and 1cm from the inside, it saves 70% energy and 60% cost when looking at costs. During the building construction phase, it is applied directly on brick bims, ytong, while eliminating the costs of rough plaster, fine plaster, gypsum, eps and xps. In this way, 60% cost saving is obtained. **THERMAL SHIELD :** provides superior protection against all insects thanks to the boron and natural minerals it contains. Thanks to its structure that cannot be destroyed by microorganisms, it prevents ovulation and reproduction and provides a healthier environment.

THERMAL SHIELD : is applied in its natural form without damaging the columns and beams thanks to the application without dowels and holes. In this way, it protects the building in earthquakes and natural disasters since there are 6000 dowels on 1000m² surface. Thanks to the boron and perlite it contains, it provides fire insulation up to 1500 ° C.

It is absolutely non-flammable, non-flammable. **THERMAL SHIELD :** saves both time and cost thanks to its easy and rapid application. When 8 hours of work is calculated during the application, it covers an average of 70m² in application with a craftsman and a trowel. In application with machinery, this figure reaches approximately 300m².

THERMAL SHIELD : It is applied in all seasons between +5 and + 45C °. It is not applied on surfaces that are frozen and melting or may be exposed to the risk of frost within 24 hours. In the second layer and subsequent applications, application should be made after 24-72 hours in accordance with the weather conditions.

Our Technical Analysis Results

Dry Unit Volume Mass = 240 kg/m^3

Compressive Strength Value = 2,2 N/mm^2

Compressive Strength Class = CS II

Vapor Permeability Coefficient Value(μ) = 8

Mass Loss Value at High Temperature = %0.94

Fire Resistance Class = A1 – Fireproof Material

Thermal Conductivity Value(λ) = 0.047 W/mK

Mass Loss Value after Freeze-Thaw Interactions = %1.71
Strength Change Value after Freeze-Thaw Interactions = %2.83

Chemical Resistance

%2 In concentration H_2SO_4 Etkileşimi sonrası Kütle Kaybı Değeri = %1.34
%3 In concentration H_2SO_4 Etkileşimi sonrası Kütle Kaybı Değeri = %1.55

%2 In concentration Na_2SO_4 Etkileşimi sonrası Kütle Kaybı Değeri = %0.78
%3 In concentration Na_2SO_4 Etkileşimi sonrası Kütle Kaybı Değeri = %0.91

%2 In concentration NaCl Etkileşimi sonrası Kütle Kaybı Değeri = %0.27
%3 In concentration NaCl Etkileşimi sonrası Kütle Kaybı Değeri = %0.32

Everything Is In This Bag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