DAKU

LA NATURA SUL TETTO

Advantages

Purpose of the green roof system

- Estensivo
- Intensivo

Criteria for a correct choise

- Estensivo
- Intensivo

Energy and environmental advantages

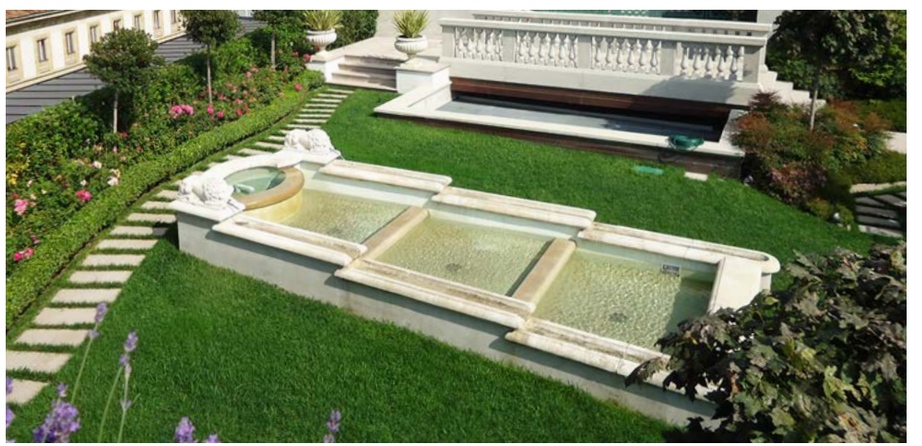
- High water retention
- Dust retention
- Bioclimatic improvement
- Biodiversity
- Thermal insulation and rooftop protection
- Soundproofing

Economic and social advantages

- Rooftop Protection
- Increase in the floor area
- Increase in market value
- Increased psycho-physical wellbeing

Estensivo
green roof

Intensivo
roof garden



Purpose of the green roof system

ESTENSIVO
green roof

Known as «Green Roof» is a technological finishing of the roof.

It must be evaluated according to the cost / benefit ratio.

The aesthetic aspect is subordinated to the technical features.

INTENSIVO
roof garden

Known as «Roof Garden» is the construction of a garden on the roof with the same features and performances of those on land.

Aesthetics, usability and functionality are primary aspects.

Criteria for a correct choice

ESTENSIVO
green roof

Low resistance to trampling

Reduced choice of vegetation

High environmental value

Extremely reduced ordinary maintenance

Generates economic benefits

Weight with saturated system of 93 kg/m²

Summer water requirement of 0,3 liters/m² for day

INTENSIVO
roof garden

High trampling resistance

Wide choice of vegetation

High aesthetic value

Regular routine maintenance throughout the seasons

Improves the quality of living

Weight with a saturated system of 192 kg/m²

Summer water requirement of 4 liters/m² for day

Energy and environmental advantages

- HIGH WATER RETENTION
- DUST RETENTION
- BIOCLIMATIC IMPROVEMENT
- BIODIVERSITY
- THERMAL INSULATION
- SOUNDPROOFING

High water retention

In the last 50 years the increase in overbuilding has reduced the absorption of rain by the soil and strongly speeded up the flow of surface water through sewers and then rivers, increasing hydrogeological instability. The green roof is one of the most effective tools to face this problem in an urban environment.

The high water-storage capacity allows the DAKU system to retain up to 80% of annual meteoric precipitations, reducing the flow of water to the drains.

Dust retention

The green roof leads to a reduction of fine dust in the air thanks to the property of the green mass that:
· captures the particles
· retains them in the foliage
· releases them on the substrate, where they lose their dangerousness, during rainfalls.

The green roof also lowers the circulation of fine dust in the atmosphere by reducing:
· the overheating of the exposed surfaces
· the formation of ascending currents responsible for the propagation and suspension of fine dust in the air.

The green roof is considered a valid tool to limit the Urban Heat Island (UHI) and to obtain a bioclimatic improvement of the urban ecosystem, restoring part of the biological mass that has disappeared due to overbuilding.

The presence of lawn areas limits the amount of reflected radiation and acts as a temperature regulation.

The vegetation acts as a wind barrier and changes its direction.

The presence of vegetation leads to an increase in relative humidity values and a reduction in temperature, due both to the effect of shading and the evaporation-transpiration of the leaves that absorb most of the incident heat, thus favoring a passive cooling.

Bioclimatic improvement

Biodiversity

With the creation of suitable spaces for the development of native fauna and flora, new ecosystems are created even in a highly anthropized environment.

The green roof contributes to retaining heat, reducing dispersion during the winter period and generating “thermal lag” which during the summer period allows a reduction in the use of air conditioning systems.

Thermal insulation

Soundproofing

The «sound-absorbing» capacity of the vegetation and topsoil favors an important decrease in external environmental noise allowing a remarkable reduction of noise pollution.

Economic and social advantages

- ROOFTOP PROTECTION
- INCREASE IN THE FLOOR AREA
- INCREASE IN MARKET VALUE
- INCREASED PSYCHO-PHYSICAL WELLBEING

The green roof protects the thermal and hydraulic insulation packages, extending their life and preserving their functionality.
DAKU systems protect the underlying layers from:

- UV rays
- atmospheric events (wind, hail, etc)
- ice formation
- aggression of chemical agents
  improper maintenance operations

Rooftop Protection

Increase in the floor area

The exploitation of unused areas is one of the most interesting aspects linked to the construction of roof gardens.

Recreating new spaces to increase the quality of life, relax, practice one's hobby and spend time with friends is an increasingly important prerogative in modern life.

Daku construction techniques make it possible to create terraces and roofs with great design freedom, fully usable, with a wide variety of plant species while guaranteeing: the functionality, the aesthetic aspect and the usability typical of the traditional garden.

The use of green roofs improves the appearance and functionality of the available areas and increases their commercial value. In an extremely competitive real estate landscape, saturated with standardized proposals, the green roof acts as a strong distinctive and enhancement element that allows you to sell or rent your property in the best and fastest way.

Increase in market value

Increased psycho physical wellbeing

Green Roofs allows you to enjoy greater psychophysical well-being.

The importance of greenery in the medical and psychological fields for its effects on mood and on organism is widely documented.

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