

16. The Development of The Building Roof Green Planting Method -The Development of Midoring Roof S-

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Recently, green planting method has been noticed as a countermeasure for heat-island phenomenon in the urban area and as effective methods for energy saving of buildings or improving the amenity at the roof space. And, the plant location law was revised, and it became possible that roof green planting was included for the green land area of the above-ground. Therefore, the replanting system (Midoring Roof S) for the folded-plate roof with next advantage was developed.

- ① The weather resistance is improved, because the replanting layer is constructed in order to cover the roof.
- ② There is no fear which damages existing method and comparison roof, because the water of the sprinkling does not touch the folded-plate roof.
- ③ The carrying capacity is high, because the interval of supporting material which supports the replanting layer can be freely set.
- ④ It has the function which prevents the dispersion of the replanting material for the wind.
- ⑤ Since the polystyrene of which thermal conductivity is low for water retention and drainage layer is used, the insulation effectiveness is high.

The full scale experiment using the green planting system was carried out, and it was able to be confirmed to be excellent in load resistant power, wind resistance pressure performance, thermal insulation performance.

Key words : roof green planting, folded-plate roof, load resistant power, wind resistance pressure performance, thermal insulation performance