PROTAN

BALLASTED SYSTEM

Data Sheet

Ballasted is one type of protected system in which the membrane not as the top layer but installed further down the roof build up. A heavy layer of gravel, stones, paving slabs etc. is used as the top layer to act as a ballast to hold down the membrane and also to protect it.

Roof Types

There are two main ballasted roof types; Warm Roof and Inverted Roof. They are comprised as follows.

Warm Roof Build Up

- Surface finish (ballast, paving, timber decking etc.)
- Protection layer
- Protan polymeric roofing membrane
- Insulation layer (of sufficient compressive strength to resist loads)
- Vapour control layer
- Suitable deck to withstand loadings

Inverted Roof Build Up

- Surface finish (ballast, paving, timber decking etc.)
- Filter layer
- XPS or EPS Insulation layer (of sufficient compressive strength to resist loads)
- Migration barrier
- Protan polymeric roofing membrane
- Protection layer
- Suitable deck to withstand loadings

Ballasted systems can also be applied to cold roofs.

Benefits

A ballasted PVC membrane roof presents many advantages.

- Protection from the effects of the sun and wind
- Protection from mechanical damage
- Improved fire protection
- Protects the building against the effects of rapid temperature changes
- Requires no mechanical fixing in the main roof area
- No penetration of the vapour control layer
- Improved acoustic performance
- Provides more natural landscape
- Freedom of aesthetic design

Applications

Gravel and stone ballasted roofs are perfectly functional, however for a roof that it expecting heavy foot traffic a different ballast should be specified. A ballasted roof finished with paving or decking provides an additional recreational area to a building improving it's functionality. These roof areas also make a building more visually appealing.

A minimum of 50mm round-grained natural gravel or 50mm concrete tiles must be used to prevent the wind from affecting the roofing membrane. For further advice please contact Protan (UK) Ltd.

References

For further technical information please refer to:

- BBA Certificate 00/3755
- Protan G Membrane Datasheet
- IAB Certificate 02/0263

All of the above documents are available from Protan (UK) Ltd.

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