

# Vincent and Gorbing Design UK's First Prefabricated Hemcrete Warehouse for Wine

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The UK's First Prefabricated Hemcrete Warehouse for Wine, designed by Vincent and Gorbing, Chartered Architects and Town Planners. The highly innovative distribution warehouse for The Wine Society in Stevenage, Hertfordshire.

**Client**  
The Wine Society

**Architects**  
Vincent & Gorbing – Architect

**Structural & Civil Engineer**  
MLM

**Mechanical & Electrical Engineer**  
MLM

**Employer's Agent**  
Millbridge

**Main Contractor**  
Morgan Ashurst

**Cost Consultant**  
RLF

**Building Control**  
Stevenage Borough Council

**CDM Co-ordinator**  
Davis Langdon LLP

Vincent and Gorbing, Chartered Architects and Town Planners, have announced the completion of a highly innovative distribution warehouse for The Wine Society in Stevenage, Hertfordshire. The £3.7m warehouse is the first building of its type in the UK to use off site construction techniques involving pre-formed wall panels of the energy saving material Tradical Hemcrete. Vincent and Gorbing were appointed Architects for the project in early 2007 to design additional wine storage facilities on site to cope with recent growth and future demand.

Vincent and Gorbing secured detailed planning permission in October 2007 for 5250m<sup>2</sup> of warehouse accommodation designed over two phases. The first phase is now complete and provides 3250m<sup>2</sup> of wine storage accommodation.

Mark Chandler, Architect and Director of Vincent and Gorbing said: "The design responds to the requirement for minimal heating and cooling equipment with the resultant reduction in energy consumption. This is principally achieved by the use of the exterior wall cladding material Hemcrete which offers excellent insulation properties and maintains a stable internal air temperature throughout hot summers and cold winters. Wine is best stored at between 13°C-16°C and will only accept slow temperature variations. The storage of large volumes of wine (liquid) at a low temperature provides an excellent source of thermal mass which contributes to the steady-state-environment. The thermal mass of wine is insulated by the wall cladding Tradical Hemcrete. The use of this material, which is a mixture of hemp stalk and



modified lime, in large prefabricated wall panels made off site, is the first time this method of construction has been used in a warehouse building of this type. Hemcrete is a new product innovation of cast insitu hemp-lime walling. It can reverse the damaging effects of greenhouse gases by locking up harmful CO<sub>2</sub> emissions within wall construction. It comprises a blend of specially prepared hemp shiv and a special lime based binder which together form a bio-composite building material. The hemp, the key element in these products, is grown and harvested in the UK. It provides one of the best value materials for low impact, sustainable and commercially viable construction.”

**Mr Chandler continued:**

*“The 21m double height structure comprises a steel frame, Hemcrete wall panels (300mm thick and 8.5m<sup>2</sup> in size), composite cladding and highly insulated aluminium roof covering. Storage is eight pallets high, taking full advantage of new forklift truck technology and allowing a good return on investment. Standard warehouses only store up to five to six racks.”*

The steel truss framed building provides structural support for the large prefabricated Hemcrete panels. The distribution warehouse is naturally lit by the use of Kalwall, a glass fibre insulating panel which offers up to 50% light transmission. The combination of internal Hemcrete wall panels, exterior composite panels, Kalwall and a highly insulated roofing system provides an insulated internal space which exceeds current Building Regulations.

**The Wine Society commented:**

*“Vincent and Gorbings have demonstrated not only their expertise in designing a sustainable building but also their knowledge of new and innovative building materials and effective modern methods of construction. The practice also understand our business and the essential environmental conditions that apply to the storage of wine.”*

**The Wine Society continued:**

*“The combination of external materials and colours were carefully selected by the architects to complement the character of the existing building and have been carefully detailed to achieve a crisp, high quality and contemporary architectural appearance.”*

The Wine Society is a non profit making wine organisation owned by its members. It was established in 1874 for the purpose of sourcing, importing, storing and distributing wine to its members, all of whom are shareholders. Most of its operations are located in Gunnels Wood Road, Stevenage, Hertfordshire, from where it provides over seven million bottles of wine a year to its 100,000 members across the country, largely using its own fleet of vans. It is the Wine Merchant of the Year according to Decanter magazine readers. ↴

**The Wine Society’s warehouse completion follows that of Hatfield and Stevenage Police Stations in Hertfordshire, also designed by Vincent and Gorbings.**

Vincent and Gorbings provide architecture, interior design, town planning and urban design services to private and public sector clients throughout the UK. The practice operates within the retail, industrial, commercial, leisure, interior, housing and town planning sectors. Its client portfolio includes retailers, county and district councils, police and fire services, developers, private companies and PLCs, national housebuilders, housing associations and private individuals.