

AN ROINN TALMHAÍOCHTA IASCAIGH AGUS BIA
DEPARTMENT OF AGRICULTURE, FISHERIES AND FOOD

MINIMUM SPECIFICATION FOR HAY AND STRAW STORES

The receiving of this specification does not imply approval of a grant application. However, if written approval is issued, then this specification becomes part of the contract between the applicant and the Department of Agriculture and Food.

This is a minimum specification. Where the word “SHALL” is used, then that standard (at least) **must** be followed in grant-aided buildings. Where a procedure is “RECOMMENDED”, this is advice only on good practice.

Note that all references to other Department Specifications are to the current edition of that specification [available on the Department of Agriculture and Food Website (www.agriculture.gov.ie) under Farm buildings]. Similarly, references to Standards are to the current edition of the Irish, British or European Standard, as appropriate.

Note: These buildings are not suitable for animal housing.

1. Safety

1.1 Responsibility for Safety

Applicants are reminded that they have a duty under the Safety, Health, and Welfare at Work Act 2005 to provide a safe working environment on the farm, including farm buildings, for all people who may work on that farm. There is a further duty to ensure that any contractor, or person hired to do building work, provides and/or works in a safe environment during construction.

1.2 Safety during Construction

Farmer/Applicant Responsibility: Please note that neither the Minister nor any official of the Department shall be in any way liable for any damage, loss or injury to persons, animals or property in the event of any occurrence related to the development and the applicant shall fully indemnify the Minister or any official of the Minister in relation to any such damage, loss or injury howsoever occurring during the development works.

Dangers: Where the applicant/farmer is undertaking any part of the above work, it is his/her responsibility to seek competent advice and to undertake all temporary work required to ensure the stability of excavations, superstructure, stanchion foundations, wall foundations, to guard against possible wind damage and to avoid any other foreseeable risk. It is also his/her responsibility to ensure that any drains, springs or surface water are diverted away from the works.

Power lines: Farm buildings shall not be constructed under or nearer than 10m to an overhead power supply. If advice is required, or if power lines need to be diverted, it is the applicant's responsibility to contact, in writing, the local ESB supervisor before construction commences and then to follow the ESB conditions.

Danger to children: It is the applicant's responsibility to prevent children from playing or spending time in the vicinity of any construction work.

2. Superstructure

The general superstructure of the building shall be constructed to the current edition of **Specification S101: Minimum Specification for the Structure of Agricultural Buildings**. If other structural designs not specified in S101 are used, then a full set of design drawings and full structural calculations shall be prepared by a chartered engineer, and given to this Department for prior approval before the start of construction.

No outlet ventilation is required.

3. Walls

No walls are permitted in a grant-aided hay/straw stores.

4. Floors

Floors shall be of at least 150mm compacted hardcore. A concrete floor is not permitted.

5. Side Cladding

Side cladding, as specified in S.102, is permitted to run from the eave down to no closer than 0.6m from the floor of the store. To prevent personal injury side cladding shall not be finished within the range 0.9m to 2.1m from ground level in any hay/straw store.

6. Roof cladding

Roof cladding and roof lights shall be installed as per requirements of S.101. All cladding materials shall conform to Specification S.102.

7. Clean Water Drainage

Full gutters and down pipes shall be installed on all hay/straw stores as per S.101. All roof water from hay/straw stores shall be piped directly either to an existing clean water disposal system or to an adjacent water course.

8. Electrical Installations

8.1 LIGHTING

The installation of lights is optional in a hay/straw store. Where artificial lighting is provided it shall be by florescent tubes in hose proof, impact proof (polycarbonate) fittings and certified in accordance with S101 requirements. The lighting shall be a minimum 200 lux.

9. Concrete Specification for Stanchion Foundations

9.1 Certificates

Concrete shall be produced in an audited plant only: It shall not be produced on site. As and from 1st January 2008 the plant shall be audited to ISEN 206-1: 2002 by an independent 3rd party accepted by the Department of Agriculture, Fisheries and Food. A numbered certificate, signed and stamped, shall be required for all concrete delivered to site. The certificate, the "Concrete Manufacturers' Specification Certificate", is produced in triplicate. **The top certificate, printed on light blue**

paper, shall be retained by the applicant and given to and retained by the local AES Office of the Department of Agriculture for inspection upon completion of the works.

9.2 Concrete

Concrete shall be purchased on the basis of a characteristic 28 day crushing strength of 35N/mm². Minimum cement content shall be 300 kg/m³. Slump of unplasticised concrete shall not exceed 90mm, and maximum aggregate size shall be 20mm.

The concrete shall be ordered by requesting ‘35N concrete to be certified to the grant-aid standard of the Department of Agriculture and Food’.

If the Concrete Supplier requires further information the following shall be quoted to them:

- The concrete is to be to I.S. EN 206-1:2002: Strength Class: C28/35, 300 kg cement, maximum water cement ratio of 0.60, Exposure classes: XC4, XF3, XA1 (20 year life), Slump class: S2 (unplasticised), maximum aggregate size 20mm.

If plasticised concrete is desired, the slump class shall not exceed S3.

Polypropylene fibres may be incorporated into the concrete mix to improve the properties of concrete. Only fibres which have been tested and approved by National or European approval authorities may be used. The use of fibres helps to reduce plastic cracking and improve surface durability but they are not a substitute for structural reinforcement. Fibres shall be used in strict compliance with manufacturer’s instructions and shall only be added at the concrete manufacturing plant. The concrete certificate (Clause 6.1) shall clearly show the amount and type of fibre added. The mix design, compacting, and curing of fibre concrete is the same as concrete without fibre. Under no circumstances shall additional water be added to the concrete to change the workability.

9.3 Materials

Cement used in concrete and concrete products shall be certified to IS EN 197-1, and shall bear the Irish Standard Mark, or shall be certified by NSAI to be equivalent to IS EN 197-1. All aggregates shall be to IS 5 1990. Plasticisers and other admixtures shall be to EN 934. All admixtures shall be used in strict accordance with manufacturer's instructions, and shall be added only by the concrete-mix manufacturer.

9.4 Tests

The Department reserves the right to require that concrete should be tested in accordance with BS 1881, and that installed reinforcement may be checked by electronic or other means.

9.5 Compaction of Concrete

All concrete shall be compacted by either vibrating screed or poker vibrator depending upon the position of the concrete. Poor compaction leads to entrapped air, which will weaken the concrete and may cause premature failure.

10. Certification

The following Certificates shall be provided to the applicant for submission to the Department before grant-aid can be certified for payment.

1. ‘Concrete’ Certificate [clause 6.1]
2. Protection of Structural Steel Certificate