

# Livestock Shed

South Farm, Stainton Le Vale North Lincolnshire UK



This is a cattle shed where the animals are brought to within the winter months for feeding. These buildings have concrete bases which are susceptible to leachates and chemicals coming from the animal silage feed and manure. These chemicals are highly corrosive to steel reinforcement.



## Project Owner

South Farm

## Product Used

Durus EasyFinish & Fibrin XT

## Volume of concrete

200m<sup>3</sup>

## Project highlights

- No steel mesh reinforcement was required
- The fibre reinforced concrete was placed directly into the shuttering.
- Easy dappled Finish was achieved.
- Project finished in half the time by omitting steel mesh reinforcement.
- Cost reduction by not buying or fixing steel mesh.
- Health and safety for the contractor and the animals was improved.





**Concrete discharged directly into the shuttering**



**Screed bar dappled finish**



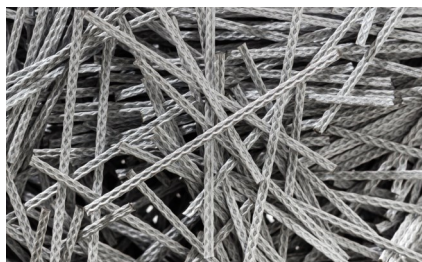
**Shed in use sooner, due to quicker installation**



**Livestock healthy and safe**

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**Products used**



**Durus Macro Synthetic Fibre**



**Fibrin Micro Fibre**

## Challenge

Due to the corrosive nature of feed silage and animal waste, this type of agricultural unit needed a concrete base which had a long service life and could withstand the loadings of cattle and be resilient against high acidity leachates which could potentially corrode steel mesh reinforcement.

## Solution And Benefits

A solution to the corrosion issues in the reinforcement was to use Durus EasyFinish Macro & XT synthetic fibres

This would improve the durability of the concrete and give a non corrosive option for the project.

The use of fibres in the concrete also gave this project additional benefits of higher impact and abrasion properties.

## Result

The external concrete works were completed ahead of a challenging construction schedule, to the satisfaction of the client.

The use of synthetic fibres will maintain structural performance and service life, while reducing construction time, cost and embedded carbon.

The use of Fibrin XT has improved the durability of the concrete pavement and given additional frost protection.

The project had no health and safety issues connected to construction with steel reinforcement, and the welfare of the animals will be maintained, with a continuously reinforced concrete foundation with fibres.

## Other Similar Projects

### Pig Farm Slurry Base



**Durus EasyFinish C40 slump concrete for a pig farm sump base.**



**Precast slatted deck allowing the slurry to flow through to the sump base.**