

# Compost Facility

## Veolia Site Rugby, Warwickshire UK



This is a multi product compost manufacturing facility which would be susceptible to leachates and chemicals coming from the blended biodegradable materials. These chemicals are highly corrosive to steel reinforcement, and the heavy plant movements mean the concrete surface is prone to wear



### Project Owner

Veolia

### Product Used

Durus EasyFinish

### Contractor

Jones Brothers / Fortel

### Volume of concrete

2000m<sup>3</sup>

### Project highlights

- The fibre reinforced concrete was placed directly into the shuttering.
- Strip pouring allowed a roller striker to be used.
- 40mm EasyFinish fibres made the float, then brushed finish easier than longer fibres
- Project finished in half the time by omitting steel mesh reinforcement.
- Cost reduction by not buying or fixing steel mesh.
- Impact and abrasion improvement of the concrete slab in a harsh environment





**Brushed finish easily achieved**



**Mass storage of mix compost materials**



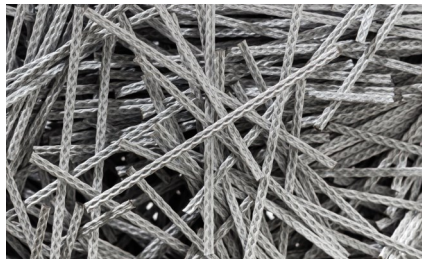
**Multi product storage bays**



**Withstanding the continues use of heavy plant**

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## Products used



**Durus Macro Synthetic Fibre**



**Fibrin Micro Fibre**

### Challenge

Due to the corrosive nature of the biodegradable products that go into making compost, this type of manufacturing facility needed a concrete base which had a long service life and could withstand the loadings of mass material storage and be resilient against high acidity leachates which could potentially corrode traditional steel mesh reinforcement.

### Solution And Benefits

- The use of fibres in the concrete also gave this project additional benefits of higher impact and abrasion properties.
- A solution to the corrosion issues in the reinforcement was to use Durus EasyFinish Macro & XT synthetic fibres. This will improve the durability and service life of the concrete.
- Fibre reinforcement will give guaranteed reinforcement throughout the slab depth.

### Result

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

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

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

The environmental advantages of using fibre reinforcement, reduced the carbon emissions of construction by around 50%

## Other Similar Projects

### Bramham Silage Clamp



Durus C40 slump concrete for silage clamp base.



Silage clamp in use holding thousands of tonnes of animal feed.