The superior self-compacting concrete
The superior self-compacting concrete

Lafarge has developed a superior range of concretes in response to the challenges of the fast-moving construction industry. The new concretes are specifically designed to save time, give greater ease of use and, of course, reduce costs.

Agilia® offers huge benefits and cost savings by allowing placement of concrete in difficult situations and complex formwork.

It is quick and easy to place, needs no vibration and moves effortlessly through highly congested reinforced areas, with no bleeding or segregation.

Faster, unassisted placing means lower site costs with reduced risks and exposure to noise and vibration.

Agilia® Concrete also provides a quality surface finish better than conventional vibrated concrete, with excellent strength and durability. It is particularly suitable for mass concrete pours, bridge decks, walls, columns, slabs, trenches and precast applications.

“The pouring the mix was simplicity itself, it is simply pumped into the buildings and requires only minimal finishing to create a self-levelled surface.”

For more information on Agilia® products call 0870 336 8258
Agilia® Trenchflow is a self-compacting concrete for use in all mass fill concrete foundation applications.

It is delivered in a highly fluid form with high deformability that will quickly allow changes of direction and enables it to flow easily around foundation trenches. Agilia® Trenchflow has a high resistance to segregation and the way it consolidates within the trench removes the need for vibration.

“This concrete reduces labour overheads on site – typically one man can place, level and finish the concrete.”

David Palmer, Self-Build Project Hemmingfield

A self-build on a rectangular plot which had access from the front and side. The footing was 17m in length. A site visit was made by Lafarge Readymix technical experts to assess access and agree the best method of discharge.

There were two reasons for using Agilia® Trenchflow. Firstly, there was a lack of labour and equipment on the site.

Secondly, Agilia® is quick and easy to use, saving valuable time. One man finished this job within 3 hours.

Supplied from a local plant in Barnsley, South Yorkshire, only 4 miles from the project. The customer was pleased with the delivery times and service he received in addition to the superior product performance. In total, he purchased 50m³ of Agilia® Trenchflow.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>Agilia®</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance of fluidity</td>
<td>&gt; 1 hour</td>
<td></td>
</tr>
<tr>
<td>Compressive strength at 28 days</td>
<td>20N/mm² (or to customer’s specification)</td>
<td></td>
</tr>
</tbody>
</table>

### SAVINGS

<table>
<thead>
<tr>
<th>Item</th>
<th>Agilia®</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>1 man</td>
<td>3 men</td>
</tr>
<tr>
<td>Plant – Vibrator</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Plant – Excavator</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

### BENEFITS

**REDUCED LABOUR**
Typically one man can place, level and finish the concrete.

**NO VIBRATION**
This procedure requires no vibration, eliminating the inherent problem of ‘vibration white finger’ and reduced noise pollution.

**FLEXIBLE PLACING**
Agilia® Trenchflow’s properties allow house foundations to be typically poured from one or two discharge points.

**READY IN 24 HOURS**
Early strength – mix achieves sufficient strength typically at 24 hours to allow the bricklaying process to proceed.

**COMPLETE FILL**
Fills the trench completely, leaving no voids, with little or no surface bleeding or surface laitence.

**NO ADDITIONAL TREATMENT**
Does not segregate or require the addition of water on site to aid placement of the concrete. There is no need for a subsequent admixture.

**INDIVIDUAL SPECIFICATIONS**
Agilia® Trenchflow can be formulated to suit all environmental classifications.

**STEEL REINFORCEMENT IN TRENCH**
Flows easily around all types of trench, even those containing steel reinforcement.
Agilia® Horizontal is a self-placing, self-compacting concrete which enables the rapid and effortless fabrication of slabs and floors whilst obtaining a high quality surface finish.

"Agilia® Horizontal’s finishing characteristics and high quality surface finish often mean the elimination of the use of power-floated concrete on site."

CASE STUDY  HALLAM CONTRACTS, LEICESTER

Hallam Contracts, New Student Accommodation, Leicester

The building is in the middle of an existing residential area. By using Agilia® Horizontal, the contractors were able to pour each elevation in one, eliminating late finishes with power floats, and hence totally eliminating site noise outside normal working hours.

Using Agilia® Horizontal enabled the contractor to double their pour size and brought back the time lost on programme on constructing the first 4 floors using conventional concrete.

The concrete gang consisted of 4 workers who typically placed and finished between 600 – 690m² daily over a 4-day period.

SPECIFICATIONS

| Maintenance of fluidity | ≥ 2 hours |
| Compressive strength at 28 days | 35N/mm² (or to customer’s specification) |
| Drying shrinkage at 28 days | < 0.055µm/m |
| Minimum thickness | ≥ 50mm |

SAVINGS

| Costings | Agilia® | Normal |
| 8x300/400m² floors poured | 4 days | 14 days |
| Labour | 4 staff | 6 staff |

BENEFITS

QUALITY SURFACE FINISH
Agilia® Horizontal’s finishing characteristics and high quality surface finish often mean the elimination of the use of power-floated concrete on site. Floor finish tolerance to BS 8204 -1 SR2.

FLEXIBLE PLACING
Can be placed directly from the truck-mixer chute, pump, conveyor belt or craned skip.

REDUCED LABOUR
Agilia® Horizontal is convenient, saves time and permits the flexible use of labour on the building site.

NO VIBRATION
This procedure requires no vibration, eliminating the inherent problem of ‘vibration white finger’ and reduced noise pollution.

APPLICATION
Can be used typically in the following applications; slabs, structural toppings and oversite.

NOISE
Elimates traditional methods of placing and finishing concrete. Ideal when working in inner-city and built-up residential areas.
Agilia® Vertical is a self-compacting concrete for use in walls and columns in all types of building construction.

“An exceptional quality of surface finish is obtained, removing the need for any remedial work.”

Agilia® Vertical was recommended and each pour was completed typically in less than one hour, using a crane and two operatives. No vibrators were used.

For some of the wall pours, the reinforcement was more congested requiring the tremie pipe to be no wider than 40mm; even under such arduous conditions, Agilia® Vertical delivered the same quality of finish with little difference in placing rate. The exposed surface can be seen in the illustration and required no further.

**CASE STUDY  NORTHFIELD CONSTRUCTION, LOUGHBOROUGH**

Northfield Construction Ltd
Loughborough University

A large retaining wall was required of between 4.5m and 4.9m. The client and architect required the visible face of the wall to have high quality finish equal to a BS 8110 Type B.

Agilia® Vertical was recommended and each pour was completed typically in less than one hour, using a crane and two operatives. No vibrators were used.

For some of the wall pours, the reinforcement was more congested requiring the tremie pipe to be no wider than 40mm; even under such arduous conditions, Agilia® Vertical delivered the same quality of finish with little difference in placing rate. The exposed surface can be seen in the illustration and required no further.

**SPECIFICATIONS**

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<thead>
<tr>
<th>Item</th>
<th>Agilia®</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance of fluidity</td>
<td>≥ 2 hours</td>
<td></td>
</tr>
<tr>
<td>Compressive strength at 28 days</td>
<td>&lt; 35N/mm² (or to customer’s specification)</td>
<td></td>
</tr>
<tr>
<td>Water/Cement ratio</td>
<td>As specified by the client</td>
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</table>

**SAVINGS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Agilia®</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crawler crane skip etc. £40/hr</td>
<td>1.25</td>
<td>3</td>
</tr>
<tr>
<td>Placing 2 staff</td>
<td>1.25</td>
<td>3</td>
</tr>
<tr>
<td>Vibration 2 staff</td>
<td>Nil</td>
<td>3</td>
</tr>
<tr>
<td>Vibration equipment £4.5/hour</td>
<td>Nil</td>
<td>3</td>
</tr>
<tr>
<td>Surface remedials</td>
<td>Nil</td>
<td>3</td>
</tr>
<tr>
<td>Shutter remedials</td>
<td>Nil</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>£91</strong></td>
<td><strong>£384</strong></td>
</tr>
<tr>
<td><strong>COST PER CUBIC METRE</strong></td>
<td><strong>£5</strong></td>
<td><strong>£22</strong></td>
</tr>
</tbody>
</table>

**Note:** Due to its high quality, Agilia® Vertical mix designs are designed for each specific contract once such factors as placing techniques and strength requirements are known.
Agilia® Force has been designed to meet the demands of any type of construction. Its self-compacting properties make this concrete suitable for any job having areas of difficult access or complex formwork configurations.

“No Vibration
This procedure requires no vibration, eliminating the inherent problem of ‘vibration white finger’ and reduced noise pollution.

Flexible Placing
Flows easily through highly congested, heavily reinforced areas. Its highly fluid and cohesive properties also make Agilia® Force suitable for jobs where access is difficult such as bridge spans, where longer pumping distances are involved.

Reduced Labour
As a result of the ease of placement, large pour sizes are achievable with reduced labour and plant requirements.

Noise
Eliminates traditional methods of placing and finishing concrete. Especially important in inner-city and built-up residential areas.

Case Study: Winson Green Prison, Birmingham

Winson Green Prison
Birmingham

350m³ of Agilia® Force was supplied for use on Winson Green Prison for concrete walls containing dense steel reinforcement and services.

The walls were finished to a high quality surface finish which saved money through considerable reductions in labour.

Specifications
- Compressive strength at 28 days: 20-40N/mm² (to suit specification)
- Maintenance of fluidity: typically > 2 hours
- Water/Cement ratio: As specified by the client

Savings
- Time saved: 2 weeks of contract recovered using Agilia®
- Costs saved: Full site costs of £11,000
Our products and services include:

AGGREGATES
READYMIX
 ASPHALT
 CONTRACTING
 WASTE DISPOSAL, RECOVERY & RECYCLING

Other Lafarge UK companies include:
Lafarge Cement
Lafarge Roofing
Lafarge Plasterboard
Lafarge Gyvlon

Please note: This map shows all Lafarge sites at the time of going to press, but new sites are opening all the time and some sites may not be able to offer all products.

www.lafarge-aggregates.co.uk