

# PROJECT STUDY



## National Innovation Centre for Ageing and Data Science Central

Bauder Baker Hotmelt with Wildflower Blanket and BioSOLAR System

### The Project

National Innovation Centre for Ageing and Data Science (NICAD) is a flagship building in Newcastle upon Tyne on the high-tech, city centre Helix Science Site where a number of buildings are being constructed. The client wanted an integrated PV system that didn't compromise the integrity of the green roof solution being installed. Bauder were asked to design and supply a 30.78kWp system, generating an estimated 26,140kWh per annum. The innovative Bauder BioSOLAR system is manufactured to ensure the performance of both the green roof and PV systems are maximised, taking into consideration the need for access and maintenance.

### The System

The chosen waterproofing for this project was Bauder's Baker hot melt system. The building is also benefiting from a BioSOLAR upgrade consisting of a beautiful wildflower green roof and solar power generation. Adding these additional products to the system will protect the waterproofing from degradation by UV light and also lessen the risk of mechanical damage as the BioSOLAR system is ballasted by the substrate and vegetation, meaning no mechanical fixings.

### The Installation

The city centre location required teamwork to negotiate challenging deliveries including craning materials onto the roof.

Bauder's site technician delivered onsite training for the AP2 cap sheet and also for the laying of the unique green roof system which the approved contractors carried out in addition to the waterproofing. The PV system was then installed by Energize Electrical Services Ltd. Bauder had a strong collaboration with the approved contractor, Chemplas Ltd, to maintain project deadlines and navigate challenges.

**Andrew Connell,**  
Project Manager at Energize Electrical Services Ltd, commented:

*"Working with Bauder makes life so much easier because we can really tap into their expertise."*

*The Bauder BioSOLAR PV system is a straightforward and quick system to install, incorporate that with Bauder excellent support team made the Newcastle NICAD installation was a dream to work on, and most importantly it looks great."*

### BUILDING BOARD

Project Name:	<b>National Innovation Centre for Ageing and Data Science (NICAD)</b>
Location:	<b>Newcastle</b>
Roof Size:	<b>1500m<sup>2</sup></b>
Waterproofing System:	<b>Bauder Baker Hotmelt with Wildflower Blanket and BioSOLAR System</b>
Architect:	<b>GSS Architecture</b>
Approved Contractor:	<b>Chemplas Ltd</b>
PV Installer:	<b>Energize Electrical Services Ltd</b>

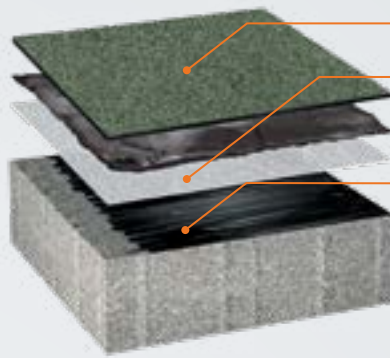
**BAUDER**



## Applied products:

### BAUDER HOT MELT STRUCTURAL WATERPROOFING

Suitable for a variety of applications on both new build and refurbishment projects and can be used in warm, cold and inverted roof scenarios.



#### AP2

chemically treated elastomeric bitumen root barrier

#### 790-11 with reinforcement layer

hot melt rubberised bitumen asphalt with a percentage of post-consumer recycled materials that infills and fully bonds to all minor deviations in the deck

#### Deck

primed concrete

### BAUDER BIOSOLAR PV

Bauder BioSOLAR is an integrated solar PV mounting system specifically for Bauder biodiverse or extensive green roofs. Bauder BioSOLAR is designed for applications where both a green roof and solar PV solution are required to meet planning and/or BREEM requirements. The green roof substrate and vegetation provide the ballast mechanism for the entire solution which removes the need for penetrating the waterproofing to secure the units to the roof and maximises the available area for the plants. Bauder Biosolar should be used in conjunction with our BauderFlora 3 seedmix which contains both drought and shade tolerant herb and wildflower species and is suitable for roofs with a fall of up to 3°.



### WILDFLOWER BLANKET

The WB Native Wildflower Blanket is a vegetation blanket which contains a broad mix of British Wildflowers grown in substrate on a coir carrier. The natural fibres of the coir carrier promote the rapid rooting of the blanket into the substrate.



Maximum saturated weight	30kg/m <sup>2</sup>
Thickness	30mm to 40mm
Species	36 wildflower species + 4 grass species (≤10%)
pH Value	6.5pH to 7pH
Material	Substrate and sedum plants, grown on a Coir mat carrier. (100% Natural Product)
Typical supply size	1x2m
Rolls per pallet	Typically, 20 rolls - Dependant on weight 40m <sup>2</sup>
Pallets per articulated lorry	26 pallets - Dependant on weight 1040m <sup>2</sup>

# BAUDER

**UNITED KINGDOM**  
**Bauder Limited**  
 T: +44 (0)1473 257671  
 E: info@bauder.co.uk  
[www.bauder.co.uk](http://www.bauder.co.uk)  
 @BauderLtd

**IRELAND**  
**Bauder Limited**  
 T: +353 (0)42 9692 333  
 E: info@bauder.ie  
[www.bauder.ie](http://www.bauder.ie)  
 @BauderLtd