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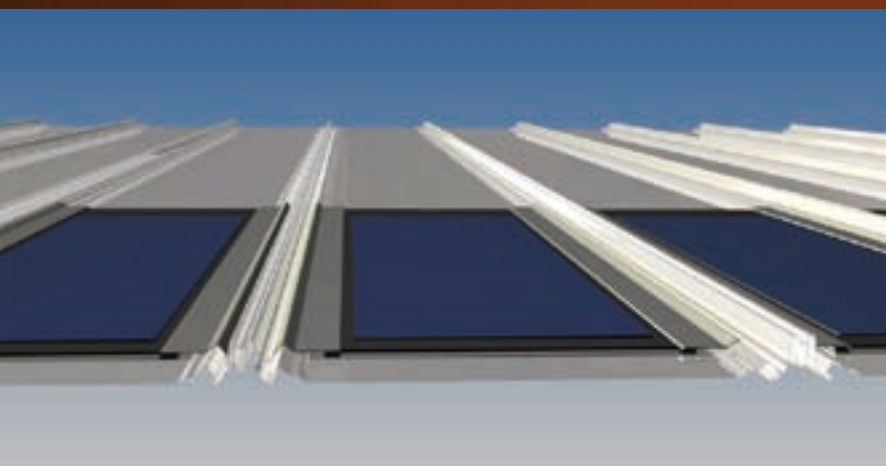
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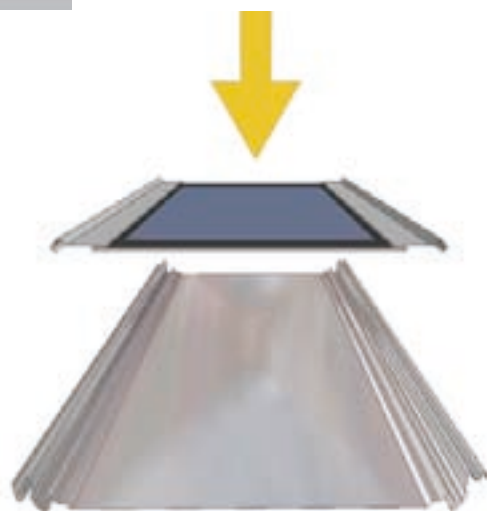
"The effect offered by the completed building is exactly what I had in mind!" pag.4

ISCOM's two new products for the combination of environment and architecture.

Elios Deck and Krystal, the innovative fully integrated photovoltaic panels.



Gaetano della Pepa



One of the reasons for the slow development of the photovoltaic technology has so far been the anti-aesthetic considerations that they could determine within certain areas.

Iscom Spa has introduced to the market two new products, RIVERCLACK ELIOS DECK and RIVERCLACK KRYSTAL, which are very easy to install, are fully integrated in the roof covering and comply with the landscape preservation requests.

The two solutions are based respectively on 2 different photovoltaic technologies, triple junction thin film amorphous silicon cells (ELIOS DECK) and polycrystalline silicon (KRYSTAL).

According to the different needs and choices made by designers and users, ISCOM can supply one or the other solution always guaranteeing a full architectural integration.

One of the fundamental characteristics which make photovoltaic ISCOM solutions unique and fully reliable lies in the easy installation methods, possible, even if used after the completion of the metal roof.

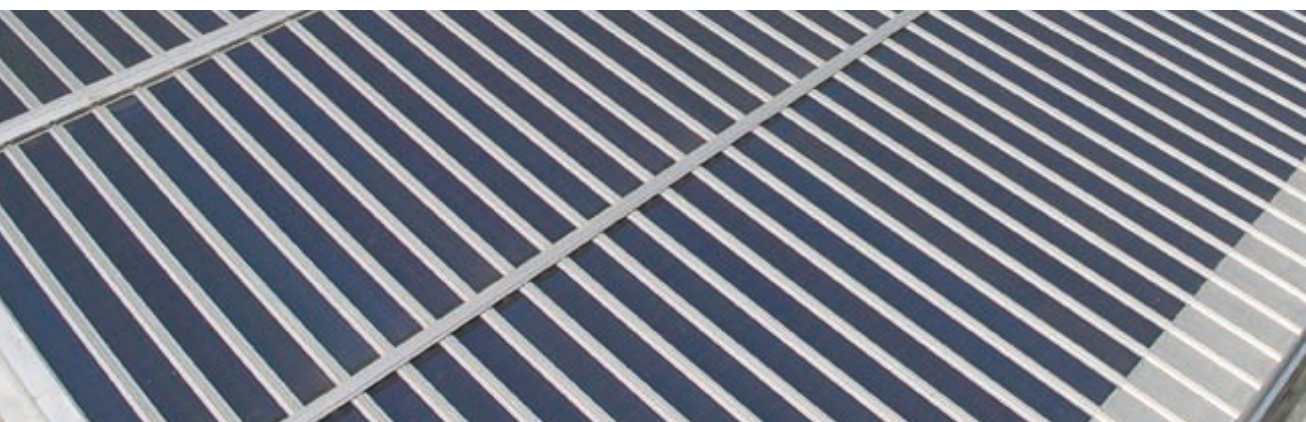
Both ELIOS DECK and KRYSTAL, can be installed by an easy snap locking system onto the RIVERCLACK® or RIVERGRIP® sheets placed earlier. In this way the laying of photovoltaic panels is easy, quick and reversible at any time.



Two new ISCOM's products for the combination environment and architecture.



Chiesa di S.Giacomo - Verona (Italy)



RIVERCLACK ELIOS DECK

Iscom Spa has chosen UNISOLAR, a leading American leading in its field, as amorphous photovoltaic panels supplier.

ELIOS DECK is made of UNISOLAR photovoltaic laminates glued and mechanically seamed onto a metal support (the deck); in this way, the adherence of the PV laminate to the support is guaranteed for the whole duration of the photovoltaic module, even in extreme weather conditions.

The ensemble laminate + support (ELIOS DECK panel) fits in the RIVERCLACK® or RIVERGRIP® sheets thanks to a snap mechanism and adheres to the flat part of them achieving in that way a perfect architectural integration.

Nonetheless, the ELIOS DECK panels can be mounted or dismantled at any time. The installation of the roof is, therefore, free from any presence of expensive photovoltaic laminates on the roof sheets and it can be carried out as quick as usual for the RIVERCLACK system. The laying of ELIOS DECK panels will be done as quick in a second time by the electricians.

The use of triple junction amorphous silicon cells silicon technology offers an high efficiency in terms of kWh per kWp installed and good performance even under conditions of low irradiation (morning, evening, overcast days).

ELIOS DECK MAIN FEATURES

- Low weight (about 5.5 Kg/m²)
- Duration (UNI-SOLAR 20 years guarantee)
- Excellent performance at High Temperatures
- Walkability
- Low architectural impact_Full Integration
- High performance in terms of kWh produced per year / kWp installed
- Excellent performance in case of weak irradiation

- Tolerance to possible shades thanks to by-pass diodes in every cell

ELIOS DECK SPECIAL ADVANTAGES

- Secured Fixation
- Quick and easy installation
- Flexible Shapes
- Easy Maintenance

RIVERCLACK ELIOS DECK
Cantina Etrusca
Castellina Marittima (PI) - Italy

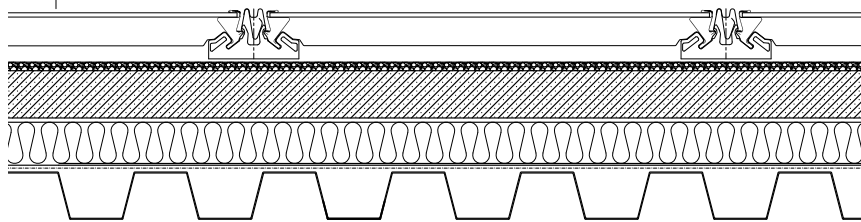


RIVERCLACK KRYSTAL

The KRYSTAL polycrystalline silicon glass modules purpose designed and made in such dimensions to be fit in the flat part of the RC sheets offer a clean and linear architectural effect. The KRYSTAL solution is ideal in case of limited installation areas given the high efficiency of the module. In fact with its reduced dimensions and its 115 Kwp per module, it's possible to offer an almost triple efficiency compared to the ELIOS DECK system in terms of Kwp / covered area ratio.

The installation of the KRYSTAL panel is easy and reliable: the system is based on aluminium profiles designed in order to house the photovoltaic panel and being able at the same to fit in the RIVERCLACK® profile width by a snap mechanism without through fixations.

RIVERCLACK KRYSTAL PANEL



RIVERCLACK ELIOS DECK
Centro servizi sanitari
di Storo (VI) - Italy



KRYSTAL MAIN FEATURES

- Polycrystalline silicon panel - High efficiency
- 115 Wp modules – Dim. 512 mm x 1638 mm

KRYSTAL SPECIAL ADVANTAGES

- Excellent Integration
- Quick and easy installation

“The effect offered by the completed building is exactly what I had in mind”!

That was the comment of the architect Schreuder who designed the logistic centre ELZENT in Hertogenbosch (NL).

There are many ways to work out the architectonic typology of the industrial building. After some years being responsible for the north European market for Riverclack, I can assert for sure that Dutch people are masters in this.

Each building is such an original creation, materials used are so refined, details are so accurate for buildings intended to be as a visiting card for the hosted company that even just driving through industrial areas can become a pleasant architectural experience.

ELZENT is a distribution centre (4000 m²) with an annexed office area (800 m²) built in the industrial ground of De Brand in Hertogenbosch, a town not far from the better known Eindhoven.

The architect, A.T.H. Schreuder, wanted to create a modern building with a facade made of zinc looking materials.

The suggestion of using Rivergrip coated aluminium sheets in RAL 9006, put forward by Riverclack Benelux, was accepted with conviction since the beginning, to such an extent that the result comes from coordinated designing between the architect, the company Riverclack Benelux, the installer Liket Metaalbouw and the technical-commercial department of Iscom.

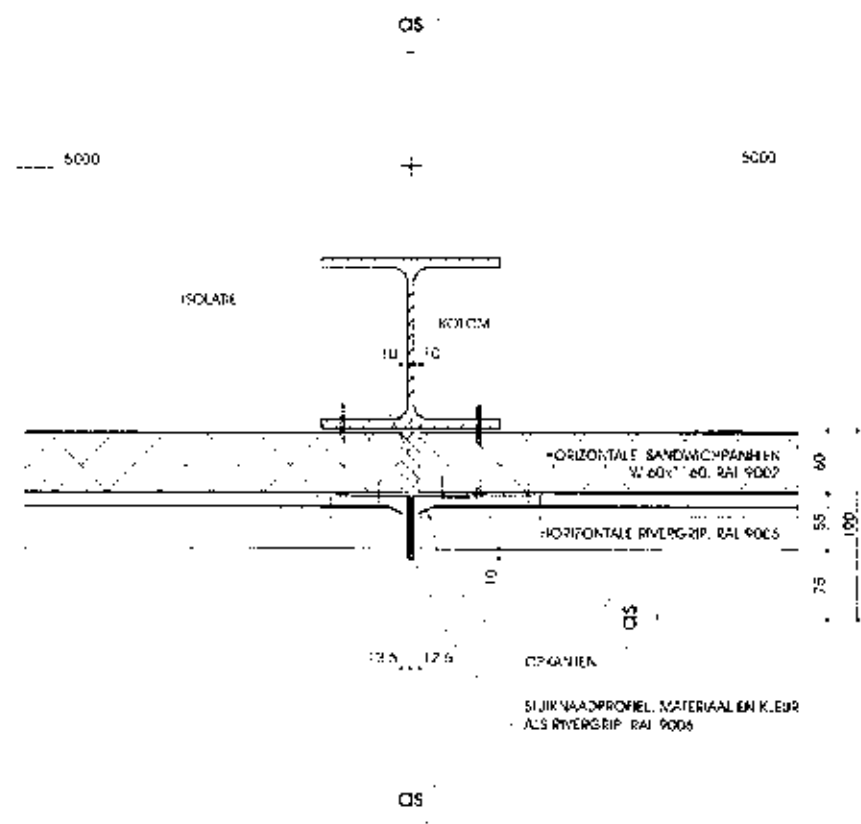
The steel structure is clad with sandwich panels in RAL 7016, which are in plain sight at the bottom of the facades and on the warehouse's walls, whereas the office area and the most representative parts of the building are covered and marked with Rivergrip sheets RAL 9006 according to an original modular arrangement.

“The effect offered by the completed building is exactly what I had in mind at designing stage” that is the comment of the building's architect to Petran Liket of Riverclack Benelux, a company set up in 2005 for the distribution of the Riverclack system in the Netherlands.

That was really a nice compliment for all those who spared no efforts for the success of the project.

Paolo Massi





PROJECT	Logistic Centre
DESIGNER	A.T.H. Schreuder
PLACE	Hertogenbosch
SURFACE	1000 m ² (façade)
SYSTEM	RIVERGRIP
MATERIAL	ALUMINUM 0.7 mm
FINISHING	RAL 9006
MAIN CONTRACTOR	Bouwbedrijf Huybregts-Relou BV in Son
CLADDING CONTRACTOR	Liket Metaalbouw



Munnikenheide College

A fast and easy roofing solution with Riverclack 55

Kees Liket

Stichting OMO is a group of 45 schools in the southern part of the Netherlands, which has existed since 1916. OMO is based on a Catholic signature and has schools in the secondary part of education of people. The schools of OMO varies from Gymnasiums to VMBO (= education for profession).

In 2005 the first contact was made between the City of Etten-Leur, Stichting OMO and G. Van Hemert Group for the realisation of a new building for the Munnikenheide College. In October 2006 an agreement was signed and building activities started at the beginning of 2007, up until the end of 2008. Construction time was very short in order to be ready for the official opening on 31st January 2009.

During the construction everybody could overlook the building site by a webcam. A short movie and a photographic chronicle is still available on the college website www.munnikenheidecollege.nl

The Munnikenheide College has about 1000 students and is a VMBO school for Economy, Techniques, Welfare and ICT. As well as classes they need workshops with machines to educate the students and rooms with computers and other IT devices.

The building needed to have a round layout because of the ground lot it was built on. At one side, the building is bounded by an artificial lake whilst at the other side it embraces a large round park area.

The development is of 155 m based on two rings: The outer ring has 3 levels with only teaching rooms; the inner ring has 2 stores where the workshops are. The 2 rings are separated from each other and connected with bridges. Both rings are about 16 meters wide and the connecting area is marked on the roof by a skylight.

As chosen by the Architect, technical plants, air conditioning ducts and machines, electrical grids and any other machineries





are left visible inside the building, because this is a technical college with students learning all about these items, therefore, the building itself is not a simple envelope but contributes to the students' education.

With its surface of about 5200 m² distributed on the two rings at different heights, the roof plays an important role in the architecture of the whole. Riverclack Benelux B.V. contracted this part of the building, proposing its Riverclack55[®] tapered roof sheets to comply with the round development of the building. The 0.7 mm thick mill finished aluminium sheets are produced by Iscom Spa in Italy and, in this case, the easy and quick installation, besides the other exclusive qualities, was highly appreciated given the tight construction times.

Metal was also chosen by the architect for the wall cladding. A 18/76 corrugated steel sheet, PvdF coated RAL 9006, installed on insulated wooden panels clothes vertically the building of this innovative, functional and lovely new school in Etten Leur.



NAME : Munnikenheide College
ADDRESS : Trivium 60 in Etten-Leur
ARCHITECT : Rothuizen van Doorn 't Hooft
Architecten Stedenbouwkundigen
Breda
BUILDING COMPANY : Van Hemert Groep BV Giessen
ROOF CONTRACTOR : Liket Metaalbouw BV Vught
ROOF SUPPLIER : Riverclack Benelux BV
Vught/Uden



Over 100 metres of roof in single sheets for “La Flota” Sport Complex

Ivan Mora

October 2006 saw the opening in Murcia of the most complete and representative sport facility of the city, the “Complejo Deportivo La Flota”.

This project, promoted by the municipality of Murcia, stands out for its very important water offer, lodging a water zone of 1600 m², including a swimming pool with 8 lanes, a recreational and multifunctional pool and a spa area. In total, the entire project is a development of about 30,000 m² of built surface.

The swimming pools area is located east-side of the lot, while the west side sees longwise the development of the sport pavilion. The two areas merge into the volumes constituted by a restaurant-breakfast room, a multifunctional room, paddle tracks, offices, playrooms, the physiotherapy clinic and the hairdressers.

All these elements are covered by a unique large scale roof, thus constituting the unifying element of the entire complex while determining the hierarchy of the facility in an urban scale.

Facing the challenge of such an important element with the high hygrometry issue involved in this type of buildings, Guives Girona’s offer for the roof was appreciated both by the architects and the building company.

The roof build-up proposal was the following: A pre-painted steel deck, Plastisol coated to withstand the high relative humidity, supporting a fully humidity proof, fire proof and dimensionally stable foam-glas® and carbon thermal insulation, bonded onto the steel deck, thus avoiding through perforations. The Riverclack® metal roof system finishes the





PROJECT: "La Flota" Sport Complex
 PLACE : Murcia (Murcia), Spain
 ARCHITECTS: Jesús Ramón Ortín, José Ramón López and Francisco Cavaz
 ROOF CONTRACTOR: Guives Girona S.A.
 MAIN CONTRACTOR: Intersa S.A.

SYSTEM: RIVERCLACK 55
 FINISHING MATERIAL: Pre-Painted Aluminium RAL 9006
 THICKNESS: 0.7 mm
 SURFACE m2: 5000 m2

ensemble with its 105 m long sheets contributing to the roof consistency pursued by the architects.



Limited space available at ground level? No problem.

If the sheets are too long to be produced in the factory and transported, or if the traditional on-site roll forming at ground level is not possible due to limited space, then roof level manufacturing is the solution.



Donna Hart

CA Building Products, the north east based manufacturer of metal roof, cladding and building envelope systems, has been providing the River-Therm® secret-fix roofing solution to the UK and Ireland since 2005.

Originally CA offered factory or ground level production for the unique River-Therm® profile, using the most efficient off-site mobile rolling mill.

The full-scale, fully engineered, factory specification rolling mill allows CA to manufacture River-Therm® sheets in their factory at Evenwood, County Durham, whilst being compact enough to be transported easily by lorry to facilitate on-site rolling.

In the past, two routes for on-site production of River-Therm® were available. The first being a more conventional method of rolling at ground level, then craning the sheets to roof level, using a lifting beam. The second is a ramp roll production method, where materials are rolled directly off the roll former

up a ramp to roof level, where they can be quickly and safely positioned on the roof by site operatives. Both these options are limited by the available space on site.

As more projects within the UK construction industry were looking for sheet lengths in excess of 100 metres, CA Building Products undertook the challenge to provide a working solution.

After a three month period of research and development, the rolling mill was placed into a purpose built container to be lifted to eaves height, we unveiled the new rolling mill in July 2008.

The new container allows rolling at eaves height, without compromising the speed or quality of the River-Therm® sheet production and can offer any sheet length required, with limitations being set by the size of the coil only, thus reducing risks associated with on-site manual handling.



Project: B&Q Warehouse
Location: Shrewsbury
Client: B & Q
Project Architect: Dryburgh Gillian Associates
Main Contractor: Dean & Dyball
Roofing Contractor: CA Roofing Services
System Manufacturer: CA Building Products
System: River-Therm®
Material: Corus Colorcoat HPS200®
 Goosewing Grey coated steel
Total Roof Area: 6100 m²
Sheet Length 118 m²
U-Value: 0.25W/m_K

Project Architects, Dryburgh Gillian Associates, specified River-Therm® secret-fix roofing solution in Corus Colorcoat HPS200® Goosewing Grey as part of B & Q's new 6100 m² warehouse in Shrewsbury.

The project provided CA with a number of challenges; the major one being the 285 m radius, which meant single lengths of 118 m were required. In order to produce such complete sheet lengths, site-rolling was seen to be the only viable option available. To further complicate the project, there was limited space available at ground level, making ramp rolling impossible.

The River-Therm® secret-fix roofing solution was specifically chosen because of the portable rolling technique that allowed the container to be lifted to eaves height so that the sheets can be rolled directly onto the roof. The main advantage this method presents is the reduction in critical path build time. Once the first few sheets have been rolled, installation can commence immediately whilst the mobile rolling mill continues to produce the remaining River-Therm® sheet requirements.

This, together with the River-Therm® system's unique design and drainage channel, which allows for the profile to be topped during a rain storm, while still ensuring all water is

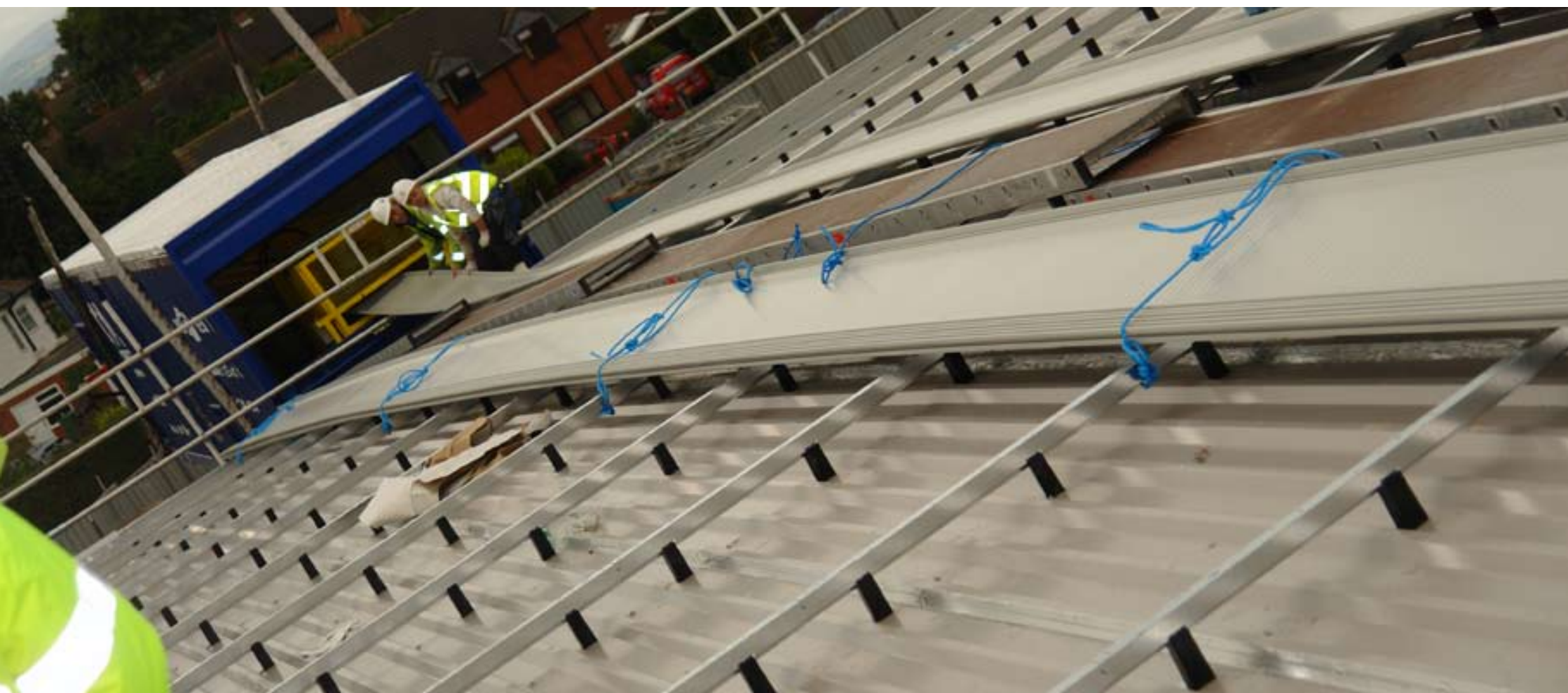
directed away and outside of the building into the gutter, proved why River-Therm® was the only logical choice for the architect.

In July 2008, CA Roofing Services arrived on site to begin preparations for the rolling mill by installing the CA 32 1000RL fully walkable and non-fragile liner panel, which made it easier and safer for the installation team to carry out the site rolling, while also providing a watertight roof lining for the building enabling internal works to begin as soon as it is installed. A spacer system was also installed to enable the River-Therm® sheets to be rolled over the roof, virtually eradicating risk from friction.

It took under three days to complete the River-Therm® sheets, including set-up and removal of the rolling mill from site. This equates to a rolling speed of approximately 2500 m² per day.

This innovative approach to creating a roofing solution ensured the integrity of the building, while not compromising on the architect's design vision.

RIVERCLACK® is manufactured and supplied in the United Kingdom exclusively by CA GROUP LIMITED under the brand RIVER-THERM®





SPORT FACILITIES



Sports Palace (Brescia-Italy)



Galatzy Sport Hall (Greece)



Swimming pool (Cremona-Italy)



Sports Hall (Montenegro)



RIVERCLACK

METAL COVERING SOLUTIONS



ISCOM spa - Via Belvedere, 78 - 37026 Pescantina (VR) - Italia - tel. +39 045 773 21 77
fax +39 045 773 29 70 - iscom@iscom.it - www.riverclack.com