Asphalt Advances at Asphaltica

As the name might suggest, the Asphaltica show in Verona, Italy was a good place to catch up on new ideas and applications for bitumen technology. Kristina Smith picked out a few highlights.

Like many of its European neighbours, much of Italy’s road network is in dire need of love and attention. This was a constant theme for the Asphaltica show which was held alongside S大户ter in Verona from 22-25 February. Speaking at the opening ceremony for the two shows, Michele Turini, president of SITEB, which represents Italian road contractors and asphalt producers, said: “The roads are in a state of emergency in Italy because road repairs have not been planned. To repair failed roads costs four times as much as it should do because the roads are in such a poor state of repair.”

It’s perhaps not surprising that there were many road repair and patching technologies to be seen. With the Italian Government’s green procurement drive, recycling was another strong theme and recent changes to specifications mean that warm mix asphalt is a more interesting prospect for Italian contractors now.

Iterchimica

Chemical specialist Iterchimica was keen to emphasise its green credentials at Asphaltica, with a stand that referenced organic shapes, furniture made from recycled cardboard and a slogan that announced “We know how to go green.”

Iterchimica used the show to highlight a new use for its cold rejuvenator Iterlene ACF 1000HP Green. Originally designed for patching up potholes, an update to the product’s formulation now means it can be used for resurfacing bike lanes and roads with low traffic. Live demonstrations in one of Asphaltica’s outside areas saw road planings mixed with Iterlene ACF 1000HP Green together with colouring and then laid down.

Iterchimica has designed the rejuvenator, which is a hydrocarbon binder with plastifiers and vegetal flux oils, so that it can be used with 100% RAP. The required dosage of rejuvenator, which comes in a liquid form, is between 2% and 2.5% by weight. Iterlene ACF 1000HP Green was launched back in 2013 and is now Iterchimica’s most popular cold rejuvenator. According to Iterchimica vice president Alessandro Gianattasio, it has been used worldwide in countries including Greece, Lithuania, Germany and Brazil.

The live demonstrations at Asphaltica generated a lot of interest, according to Gianattasio: “We have already sent out quotes after receiving price requests collected thanks to the demonstrations at Asphaltica.”

Ingevity

Ingevity came to the show with an impressive case study from Germany for its warm-mix technology Evotherm. “There’s interest from Italy because ANAS (the Italian road authority) has changed its specification so that there is no minimum delivery temperature for asphalt any more. This is brand new, so everyone is interested in moving to warm mix,” said Thomas Falvo, business development manager for Ingevity pavement technologies, EMEA.

Germany’s challenges are somewhat different to Italy’s. The Government has announced it will spend a healthy €63 billion on roads up to 2030 but the country’s asphalt producers may not be able to meet the growing demand within the existing paving season. A significant number of contracts also report problems with compaction.

One road authority which is taking a proactive approach to solving these problems is that of Rheinland-Pfalz. On a 4km stretch of the very heavily trafficked B51 highway, three lanes are each being paved in a different way to investigate the potential of Evotherm.

The first lane was a reference section, laid during the traditional paving season. The second was laid in December when temperatures dropped as low as -10°C, mixing at standard hot-mix temperatures and with the addition of Evotherm. The third and final section is due to be laid in March or April this year, with the mixing temperature lowered by 30°C; a standard warm-mix.

These sections are being closely monitored. Wirtgen is supplying a Vögele paver equipped with the company’s RoadScan system which uses GPS and an infrared camera to take measurements of the pavement’s temperature at multiple points, together with wind strength and direction.
amidst the demand to extend its product offering and turnover.

The first 12 months have been successful according to director Diego Massenza: “In the last year, Strassmayr doubled its turnover compared to the previous year. We are happy with sales made in a number of countries including the US, Russia and Eastern Europe.”

The patcher is one of Strassmayr’s best-selling machines, together with the BKM 600/500 tracklaying machine and the BF 290 road widener have also proved popular. One of the selling points of the patcher is that it contains all the equipment and materials needed to clean out and repair cracks in the road, and allows a one-man repair operation.

“IT has a front-operating boom that is operated by the driver from the cabin, using the joystick so that he can drive and repair without having to stop between operations,” said Mazzenza. “That’s a cost-effective solution, that can be used and acts as an adhesive promoter. The original version of this product, Carboside, was invented for the steel sector by Ture’s father. However research carried out at the Marche Polytechnic University in Ancona revealed that it had antioxidant powers for bitumen too.”

Rome’s Piazza del Risorgimento was one of the first places to benefit from CLW, with a trial area laid four years ago still in prime condition, while a conventionally-laid comparison section has deteriorated, said Ture. CLW allows lower production temperatures, increases the amount of RAP that can be used and acts as an adhesion promoter. With one product you can have the actions of three of the best additives in one solution,”

“Two years ago the new administration mandated the use of recycled material in construction, including roads, so the market is changing a lot,” said Alessandro Massalin, Officina dell’Ambiente’s commercial director. Matrix, which is cheaper than natural aggregate, can be used to replace 10% of the aggregate in an asphalt mix. Officina dell’Ambiente has invested a lot of resource in ensuring that its product is stable and repeatable and in obtaining a range of certification including EPD (Environmental Product Declaration). Italy’s second-, third- and fourth-ranked road contractors already use Matrix, said Massalin. And the biggest contractor had been talking to Officina dell’Ambiente at the show.

Street Life
Street Life was at Asphaltica to tell the market about its additive Carbos Long Working (CLW) which it claims can do several jobs at once.

“With one product you can have the actions of three of the best additives in one solution,” said general manager Gaetano Ture. According to Ture, CLW allows lower production temperatures, increases the amount of RAP that can be used and acts as an adhesion promoter. The original version of this product, Carboside, was invented for the steel sector by Ture’s father. However research carried out at the Marche Polytechnic University in Ancona revealed that it had antioxidant powers for bitumen too.

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Hansoo Natech
Korean firm Hansoo Natech was attracting a lot of attention at its stand with a product called SPEED RO-pocket. Launched two years ago in Korea, ‘speed Ro-pocket’ is a patching material in a bag which its maker claims will produce a repair that lasts for a year.

“It contains asphalt for cold work, you don’t need to heat it,” explained Hansoo Natech president Park Joon Ho. “It contains 100% recycled asphalt and some elements that are activated by the pressure of vehicles passing over; it becomes a sticky liquid like glue.”

Hanseon Natech, which produces a number of road repair technologies, already trades in Canada, Chile, the Philippines, Taiwan and Japan and is currently looking for distributors or resellers in Europe.