

Tonny works his magic

YEARS ago when Tonny Bergqvist was a young spray painter out west little did he realise the business he would be getting into for the rest of his working days.

Out there he discovered the amazing qualities of a magic material – it was called polyurethane. It changed his life and set him up with a great opportunity for success.

Tonny can thank the brilliant German chemist Dr Otto Bayer who invented this substance back in 1937. At that time Dr Bayer also would not have guessed the full range of its potential.

When Tonny first came across it, he was building up his painting contractor business and getting a lot of work in the bush. He used it polyurethane as a spray-on insulation material on jobs in Outback towns and on bush properties.

“I discovered what a fantastic material it was, enabling massive energy savings and possessing tremendous corrosion resistance. On sheds where they had intensive livestock such as pigs, they could increase pork production by a massive amount through polyurethane’s insulation qualities,” said Tonny.

Tonny, who had emigrated from Denmark in his youth and later became a naturalised Australian in 1966, was captivated by this oil-based piece of chemical wizardry and wanted to know more about it. So he took a trip to the US and Germany to check out how this special product

was being used overseas.

He was a quick learner, and it wasn’t long before he had bought equipment and introduced it to Australia. It was the start of something big.

“I was the first one in Australia to start spraying all kinds of buildings and roofs with polyurethane. And we were the first to introduce to Australia on a commercial basis,” he said.

His painting and insulation business grew and he soon had four trucks on the road. He used to go out to all the mining towns and sites, getting work at Mt Isa and Emerald and towns like that.

“Just by spraying one inch of it to seal roofs we could reduce inside temperatures by as much as 20° C,” said Tonny.

Then Tonny, who also had a lot of experience in the construction industry, began to explore polyurethane’s exceptional qualities even further and he saw the opportunity to make his own pre-fabricated panels to be used as roofs, floors and walls for houses (even mansions) and other buildings.

In fact, he discovered he could almost make a cocoon of polyurethane in his building designs; only the windows and doors were of different materials.

He found out that polyurethane had a range of pluses in the construction industry; it was far more than an outstanding insulator.

Thus Ecohousing Building Systems was born, a business that



Tonny Bergqvist at work at his Ecohousing headquarters

soon began to thrive; it now has many foreign orders on its books, particularly from New Caledonia. He had designed the machines, called presses (moulds), and patented them.

At its headquarters at Kunda Park near Maroochydore, Tonny, now 75 and still working hard, proudly showed me around the big sheds where he and his workforce manufacture many of the panels and the custom-made presses.

Tonny doesn’t waste any time

regaling me with the wonders of this construction method.

“Polyurethane is nil-ozone depleting, and apart from the high insulating value, the panels made from it are light yet amazingly strong structurally, provide affordable housing with a big saving on costs in construction,” he said.

“We build entire houses out of these panels. Between sheeting material in the panel moulds we inject the polyurethane, which is a

natural adhesive. It expands to double its volume under extremely high pressure, so these presses have to be very robust.

“We have even built a 3-storey mansion of nearly 900sq.m out of our panels. There’s nothing we can’t do with these materials. It’s ideal for portable housing.”

Tonny says advantage of his building method is that it doesn’t need a lot of tradesmen to finish a project and it takes a third of the time of traditional builds, which means more cost savings.

“Also, the lightweight panels are easy to move and can be picked up by one man,” he said.

He also spells out why his homes are ideal in bushfire prone zones.

“The polyurethane also acts as fire retardant. It does not melt but has to be continuously flame fed. We don’t use combustible materials so there’s nothing to feed any flames,” he said.

He even said his building method was ideal and cheap for school buildings. It’s a shame Julia Gillard didn’t get to know about it.

“Polyurethane is now the most-used insulation product in the world. However, in Australia they’re still mostly sticking to old-fashioned materials,” he said wistfully.

But he’s doing well. Who wouldn’t want a home that can easily be made highly insulated, fire safe, cyclone proof, earthquake resistant, tough yet eco-friendly, last a lifetime with little maintenance and be readily affordable?