



PIMA NEWSLETTER

PIMA Presidents Report June 2018

Dear Members,

Hard to believe that we are nearing the end of the financial year already. Since the last newsletter, your committee have been busy with the organising of the Charity Golf day (more on that later), working together with the NSW Business Chamber to put together a strategy to entice apprentices into the plastics industry through the Skills road initiative.

This will see a video presentation highlighting the opportunities that are on offer within the plastics industry in a forum that the younger generation are attracted to.....hopefully!

Please keep an eye out for further developments in this area.

The PIMA Charity Golf Day was again a huge success with great thanks to the supporters of the event. Special mention also to the companies that not only donated their time to participate, but also their sponsorship of the day. The day was won by a hard charging Redox team. Redox also gave out stubby holders in the team bags along with game balls. We raised on the day in the vicinity of \$8,000 for the Children's Cancer Welfare Association who pass all of this money onto the ground-breaking research and work being carried out to find a cure for our young ones.

The toys that were also collected have been passed onto the Barbados Foundation who care for children that have been less fortunate than us and even the homeless kids. Hard to believe that kids being homeless exists in today's society.

We are prepared to run more courses in either "Moulding Your Career" "The supervisors Course", so if you feel there is a demand for further classes to be run then please don't hesitate to reach out and let us know.

PIMA is also updating our data base. If you see this email and feel that a colleague should also be in the loop, then please not only pass this on but also send an email to PIMA and we will ensure that the person is included in the future emails.

Many thanks to everyone that assisted in the golf day with thanks also to your hard-working committee. Stay safe and take care.

Kindest regards,
Grahame Aston
PIMA President

Special Article:

PIMA Golf Day Report:

The 15th Annual PIMA Charity Golf Day has been run and won.

The lowest Gross Score was by Roblan – 66, but as this is a handicap event the eventual winners were the Redox team.

18 teams, consisting of 69 players, turned out on what turned out to be another glorious day.

I know we should not tempt fate but it never rains on a PIMA Charity Golf Day.

Due to the generosity of our kind sponsors we managed to raise \$8,500 on the day, bringing the total to \$227,500 raised over the 15 years.

For many years PIMA has supported the 'Children's Cancer Welfare Service Incorporated', a registered charity staffed by volunteers (The Late Pat Primmer from PIMA was on this committee) who raise funds to support families affected by children with cancer. All the funds raised by them are distributed through organizations such as Westmead Hospital & Ronald McDonald House to give support to families who have come under financial pressure due to having a child suffering from this disease.



Ken York Memorial Trophy
Redox Pty Ltd – Plastics Division
Graham Dickson, Ken Payne, James Scott & John Chevell
Net score: 55.75

The people behind the Children's Cancer Welfare Services Inc are based mainly in rural areas of New South Wales and are acutely aware of the added burden cancer applies to rural families. The Children's Cancer Welfare Services Inc has as its objective, to offer direct financial and practical support to families who have children suffering from cancer, particularly those families living in rural areas of New South Wales. Such support might include financial assistance for a parent to travel and stay with their sick child while they undergo treatment. It may be possible to offer financial support for the purchase of mobility aids or childcare. Other practical support might be to offer counselling opportunities for family members affected by the stress associated with dealing with cancer in a child



PPC Moulding Services #2 Team
Andrew Turner, Ken Haywood, Geoff Reynolds & Nick Connellan
Net Score: 57.57
Both teams had same Gross score of 67

In organising an event such as this it is heartening to see the generosity of the participants. Many prize winners donated their prizes back to be auctioned. This brought on spirited bidding with many willing to pay what they new was above the value of the item but were happy to do so to help out a good cause.

So, just remember, it's on again on the first Friday in May 2019. Everybody has a great day we help a wonderful cause – a true WIN/WIN situation



Tim Bailey makes history at the PIMA Charity Golf Day. Tim from Cochlear won the scotch by landing a gold coin on top of the box. The idea was the closest to the box wins. A big thankyou to all those tossers that had a go of knocking off Tim's gold coin. Over \$200 raised from the coin toss. And yes, "he donated the prize back to be auctioned."

Breaking News:

Duromer targets water sector with polyketone compound

Australian compounder Duromer Products has extended its range of polyketone compounds with a new glass-filled polyketone grade that carries US NSF 61 Commercial Hot 82° certification.

The Durateck PK10G grade was developed for a specific project for an undisclosed customer but is now available as a standard. It has a glass content of 10% and is said to offer very good hydrolysis and chemical resistance, tensile strength, toughness, and low levels of impurities.

According to Duromer Products General Manager Andrew Stewart, the new grade is expected to find applications where PES, PPSU or PEEK has previously been required to withstand long term hot water exposure. Already certified to the US NSF standard, he said the company is midway through certification to the Australian AS/NZS 4020.

This article first appeared in Feb 2018 Compounding World magazine.

For further information please contact Duromer directly <http://www.duromer.com/>

The rising need for plastics in aerospace

By
Guest Contributor

May 31, 2018



By Mark McClure, VP of operations, [International Plastics](#)

Much like its mounting use in automotive innovation and assembly, plastics applications in aircraft construction is experiencing a mounting increase in demand and use. Within three years, nearly 800 pounds of any contemporary car on the road will be plastic, and now that the material is being used for structural loads, safety, and fuel efficiency in the air, the sky's the limit, right?

Could the wing or tail assembly be next?

Plastics applications already speckle the interiors of any commercial jet, airplane, or helicopter, from the tray table at your arm, the windows on your right and left, or the canopy fixed overhead.



And this what you can see.

Fasteners, valve seats, pump gears, electrical standoffs, and insulators for the endless array of cables and wires are hidden under each wing, beneath your feet, or behind the panels along the cabin walls.

Although fluctuating prices in raw material remain one of the market's biggest obstacles, perhaps another facing the use of plastics in the air is the material's "perceived" inability to withstand loads or extreme temperatures. High-performance plastics are heat- and flame-resistant, and the advanced plastics used in aerospace are resistant to chemicals, won't corrode, and have very little smoke emission.

Following the 2013 crash of Asiana Flight 214 in San Francisco, *Plastics News* published an article outlining how the addition of advanced plastics helped to save more than 300 lives that day. According to the article, the Federal Aviation Administration wanted to reduce the number of aviation fatalities and injuries by two-thirds because 40 percent of fatalities during impact-survivable incidents were due to fire and smoke.

The report highlighted a sequence of relative incidents spanning 20 years that led to the inclusion of high-performance thermoplastics like DuPont's Tedlar polyvinyl fluoride (PVF) and Victrex polyetheretherketone (PEEK). As a result, the Asiana Flight had these materials installed in thermal acoustic insulation blankets behind the airplane's interior panels, preventing a wall of flames and impassable smoke from costing more lives and slowing the evacuation.

In addition, PEEK is used in exterior conditions where the material is open to atmospheric particles and very low temperatures. PEEK is also strong enough to handle some of the tougher jobs. Airbus helicopters began using the thermoplastic to replace metal in their door fittings back in 2015.

When selecting materials for structural applications, Paul Kumler, the president of KTM Solutions and former director of engineering at both Lockheed and Boeing, said, "The reliability of process to produce consistent mechanical properties is paramount."

"For a long time, even carbon reinforced structures were avoided because the process was not stable enough to render constant results," he said. "A firm development process of plastic materials could result in additional structural applications, barring the strength to weight ratio was achieved."

As plastics material becomes stronger and capable of handling more, its mounting use in the ground-up construction of an aircraft will continue to make them lighter, more fuel efficient, and much, much cheaper. Perhaps we will begin to see this pull down our ticket prices?

Manufacturing professionals here in South Carolina are hopeful.

With a key driver being the high cost of fuel and a market push for cheaper flights, Brian Kuney, a regional vice president at the South Carolina Manufacturing Extension Partnership, said light weighting an aircraft with engineering plastics makes it the right choice over traditional metal alloys.

"The inclusion of plastics materials impacts the bottom line," he said.

And the numbers support this claim. Did you know some plastic components are 10 times lighter than their metal versions? Did you know an airplane saves \$1,000 in fuel over its lifetime for each pound of weight



reduced? Did you know the chief material being used to build the airframes for Boeing's new Dreamliner are plastic composites?

But it's not just commercial and private aircraft experiencing a growing demand for lighter weight material; the addition of plastics in the military arsenal applies a unique advantage as well.

Much like the use of lightweight plastics in automotive construction helps reduce fuel consumption and extend time between fill-ups, the application is providing the same advantage to military aircraft — although the consequences for a fighter jet not having enough fuel to make it home or complete its mission has much grimmer consequences than an uncomfortable wait along the interstate until help arrives.

And if that weren't enough, the use of plastics can also help a fighter jet avoid radar detection.

As it stands, Bob Browning, a former vice president of business development for Lockheed Martin and senior director of business development at Boeing, said the amount of plastics in aircraft construction is predicted to increase about 5 percent each year through 2021.

"With general aviation trailing at 15 percent, nearly 70 percent of plastics are found in commercial and freighter aircraft, while almost 60 percent of those plastics are found in their interiors," he said.

Although the bulk of plastics materials are found on the inside of non-military aircraft, innovation in advanced and composite plastics has increased their needs exponentially. The use of plastics in aerospace has already quadrupled over the last 50 years. Can you imagine what your commercial or regional aircraft will look and feel like in another five decades?



Mark McClure is the vice president of operations at International Plastics, with more than 30 years of experience in the flexible packaging industry. Mark has a vast resume of experience and knowledge from stocking product in the warehouse to overseeing all aspects of the family business. He has played an intricate role in business success at International Plastics by helping plant the vision of the future back in 1998 and seeing it come to fruition.

June 4, 2018, 1:35 p.m.: This story has been updated to reflect Brian Kuney's position at the South Carolina Manufacturing Extension Partnership. The story originally referred to it as the South Carolina Extension Partnership. UBJ regrets this error.



Membership drive, we will welcome any new members or past members re-joining the cause. Visit our website at www.pima.asn.au for further information or contact us direct with an email to pima@pima.asn.au to obtain information on membership.

Please see link on our website to Consonic information on their Engineering support, if you require any assistance or have questions please contact:

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Up Coming PIMA Key Dates:

Plastics Pioneers:	Thursday 30 th August 2018
Bare Foot Bowls Day:	Friday 14 th September 2018
Young Achievers Award:	Closing date for entries Friday 28 th September 2018
PIMA AGM:	Thursday 18 th October 2018
Plastics Pioneers:	Thursday 29 th November 2018