





**Lessons From Life #22** 

#### Two Photos



It's interesting as you get older, what becomes dearer to your heart. Simple things, like photographs. Mind you, my "brother" Larry and I, still enjoy the joys, of buying new toys.. But they are just that, toys. They have a limited life, and value.

I think that I got interested in photography about 40-50 years ago.. I have managed over the years to pass that interest onto the occasional nephew, like Alex.. 'I've bought my children cameras. In fact, I buy our employees, on their 10th Birthday, with our company, a camera.. And even our own, world famous, company calendar, uses photos taken by or staff.

So, you get it, I like photos... Why?

I especially like taking photos of people.. Without trying to sound arrogant and offensive, I try to capture the "essence" of that person. To capture a photo, of a family member that when you look at it, you immediately say, "YES that's him/her". I think that I did it with my father in law.. During Niki's engagement I managed to take a "quick one", at just the right time, which captured the essence of Tina's dad.

I've done it with my Auntie Lefki, before she passed away. I missed it with my dad. I think that I was too much in awe of him, and didn't have the "guts" to persist until I got it right... I've got 3 or 4 photos that I treasure... Dad the intellectual. Dad the farmer. Dad saying "You looking at me". Even an angry dad... BUT not one shot, that I can say that's dad, through and through... shame on me.

So photos, especially of family members are what, in some inimitable way, make me. Let me tell you two photos, one, that broke my heart, and one, which when I saw it in Samos, three weeks ago, made, and still makes my heart soar.

**Continued Page 2** 

# **Ariel Industries joins the Era Polymers Family**

Era Polymers is pleased to announce that as at May 1, 2013 the company has strengthened its presence in the polyurethane systems industry, following the acquisition of the Ariel Industries Pty Ltd business.

Ariel Industries has developed an impressive reputation as a developer, manufacturer and supplier of formulated polyurethane systems, tailoring products to meet stringent market requirements. Ariel Industries' success has resulted from a dedicated team of people who will continue to deliver product quality, customer service and technical support to its customers from the company's current location in Melbourne, Australia.

The Ariel Industries' product portfolio includes rigid and flexible polyurethane foam systems, as well as specialised polyurethane elastomer systems, which make this company an excellent fit into Era Polymers existing product range.

> We would like to welcome the whole team at Ariel, to the Era Family!

For more information about Ariel Industries please visit www.ariel-industries.com.au

## **Eraspray Polyureas for Ballistic Protection**

Era Polymers has always been actively involved in research and development of new concepts and solutions to existing problems brought to us by customers and independent inventors.

Recently we were approached by the APTES (Advanced Protective Technologies for Engineering Structures) Group. To support their research, Era supplied our Eraspray ESU630D to the Department of Infrastructure Engineering at the University of Melbourne in Australia.

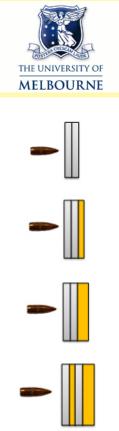
The University was conducting research into high velocity projectile penetration through Polyurea coated Aluminium Alloy plates. They compared various ballistic types, various calibre weapons and a variety of distances. The research was conducted in conjunction with the Defence Materials Technology Centre Australia.

Below you can read a summary of the study. The results of the research were very positive and the paper was published in the Elsevier scientific journal.

Localised impacts are among one of the most common loading mechanisms which many modern structures undergo during their life span. An innovative aluminium-polyurea composite plate has been developed and investigated by APTES (Advanced Protective Technologies for Engineering Structures) Group of the University of Melbourne for protecting structures against impacts. Polyurea ESU630D® supplied by Era Polymer Pty Ltd. has been used as the elastomer to form the composite used in the study. The high strain

rate behaviour of polyurea and aluminium alloy was studied both experimentally and theoretically. The improvement in the resistance of polyurea-aluminium composite plates subjected to both low and high velocity projectile impact was evaluated. High velocity test program was conducted using NATO standards 5.56x45mm FMJ (full metal jacket) and British ballistic standards. Polyurea ESU630D® showed good ability in energy absorption and reduction of residual velocities of the projectiles.

For the full story and report please see our website at www.erapol.com.au



APTANE



# Herald

#### **Lessons Continued**

The first one, was of my mother. In her days when we lived in Samos, we only had two photos of her, from that time. The second was one photo, was taken on her wedding day. Mum and dad got married in Mitilini, on a Saturday. After the ceremony, they got dressed into their street clothes. Dad put his new bride on the back of the family horse, and he walked by her side to the BIG village of Vathi... where they got back into their wedding clothes, and had the only photographer in town, take one wedding photo, which is now hanging on our wall.

The first photo of her was, taken about 1 year before she got married, so she must have been about 23 years old... She only had one copy. It showed her in the same hairstyle that she used until the day she died. She even had lipstick on... which she very rarely ever wore again.

When Tina and I married in '76, it took me a few months, to convince mum, to let me borrow it.. I wanted to make copies for my two sisters and I. She gave it to me finally. I took it down to the local chemist shop.. Back then, the shop would send it away to KODAK, to have the copies made. That's the way you did it back then. The problem was that the original ONE AND ONLY copy of my mother never came back. KODAK lost it, the chemist shop lost it.. They both

ducked for cover. I threatened to sue... BUT, the photo was lost forever.. For the rest of my mother's life, she would ask for it back, and for the rest of her life, I played dumb... I told her she couldn't have it back.. Without actually telling her that I'd lost it.. The dumbest thing that I've ever done.. And it brought out the coward in me, in not being able to admit such a loss to my mother.. It has haunted me ever since. NOW, I make copies of photos for everyone.. I have my own printer.. And flood the family with photos... lots of them.

The second photo, was taken on, I think Sunday 30th November in 1975. Until I saw it in Samos Greece, a few weeks ago, I didn't even realise that it existed.. So I've taken a photo of that photo. And I treasure it above all others.

That Sunday, I had gone to Bondi Beach.. It was a very hot Sunday. My friends hadn't shown up, and I came home early that day. My mother, at church, had offered some Basil pots, to some distant friends.

You can spot a Greek house, a mile away, by the way, by the basil growing in the front yard. Greeks don't use it in cooking. It has a religious significance, and has the added benefit, of keeping flies, and evil spirits away.

So anyway, Mr. and Mrs. Trovas, with their daughter, had come to our house to pick up some basil pots... I took one look at their daughter, she took one look at me.. We fumbled in the kitchen trying to find the Greek coffee. I became tongue tied. I mumbled, I stumbled.. And I realised that I had just fallen in love.

YES, it was THAT fast!

Thirty eight years later, the mumbling and stumbling has long gone... BUT, I still giggle inside every time I look at my wife.. My heart still soars every time I see her.

So what's the photo got to do with it?

That day, Mr. and Mrs. Trovas, together with their daughter, Tina, were on their way to celebrate Tina's Goddaughter's birthday... And she RELUCTANTLY had come to an "old people's house", to pick up a couple of Basil pots.

The photo, of the photo, shows an 18 year old woman, who captured a man's heart, for all eternity.

Staring at the same woman for 38 years, and knowing her face THAT well, tells me, looking at that photo, that she too, was in love that day.

Photos can do that to you.. They can make you, and they can break you.

#### Motivational Zuotes

The highest reward for a person's toil is not what they get for it, but what they become by it. - John Ruskin

## What's Cooking

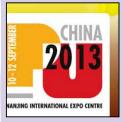
Occasionally we get told by our customers, that the elastomers produced from our prepolymers do NOT match the properties quoted in our published literature. There are many reasons why this should be so...

ONE key trait, that many are not aware of is, that NOT all Mocas are Moca. e.g. have a look at the table below, where we ran our

standard E90A, with two "No Name" Mocas against OUR Standard Moca. Characteristics like Tensile Strength, Tear Strength, and Abrasion resistance are dramatically down. Globally there are something like nine producers of Moca... Be aware that they are NOT all of the same quality.

		Erapol E90A		
Property	Method	MOCA 1	MOCA 2	Std MOCA
Hardness (Shore A)	AS1683.15	90	89	90
Density (g/cm²)	AS1683.4	1.106	1.104	1.1
Rebound Resilience (%)	DIN53512	45	44	55
Tensile strength (MPa) /	AS1683.11	28.1	34.1	42
Elongation at break (%)	AS1683.11	425	400	420
100% Elastic Modulus (MPa)	AS1683.11	8.3	9.1	9.3
300% Elastic Modulus (MPa)	AS1683.11	16.5	21.8	17.8
Angle Tear Strength (kN/m)	AS1683.12	75.8	68.6	85
Trouser Tear Strength (kN/m)	AS1683.12	28.6	16.6	37
Abrasion resistance (mm3) (DIN abrasion)	AS1683.21	61	62.4	55

#### **Exhibition Time!**



We are happy to announce that Era Polymers will be exhibiting at the PU China Exhibition again this year!

With plenty to show and tell, we look forward to seeing some old faces, and meeting some new faces too. Most of all we look forward to having a chat with people and helping wherever we can. So please come see us at stand 290!

For further information on the exhibition, or to register please go onto our website www.erapol.com.au







#### Era Polymers distributes the **ACMOS-Chemie release agents**



German quality approved!

**RCMOS** Era Polymers is the new and very proud distributor of ACMOS release agents for Australia and New Zealand.

ACMOS Chemie, a German company, is one of the world leaders in release agents. Not only can ACMOS Chemie offer 1500 products for many industries ranging from plastics, foams, composites and timber, but they are at the cutting edge of innovation with semipermanent and permanent release systems allowing 200-2000 production cycles before applying a new coat of release agent.

Whatever your polyurethane application is, and whatever type of foam you are using, such as rigid, flexible, integral skin or microcellular, ACMOS Chemie has the best solution for you.



### Richmond Wheels use L-ETX65D For High Performance Wheels

We were engaged by an American tunnel boring company to supply components for a new tunnel boring machine being built in Australia to service Australian mining operations. The enormous weight of the tunnel boring machine is supported by polyurethane tyred wheels which run on a concrete track which the machine builds itself as it moves forward. The forwards movement is very slow however the wheels need to withstand vibration, turning and varying loads.

The polyurethane we used for the wheels was your **Erapol L-ETX65D**. We used this because the hardness provides a nice blend of characters for heavy duty applications. While the material is hard enough to withstand heavy loads the material still deflects elastically which assists distributing the load evenly. In total 76 wheels were used to support the weight of the machine, each approximately 20,000kg of direct load, over 1,500,000kg in total weight.





#### "Global Reach, Family Values"

**Era's Distributors:** 



We first made contact with Chemex Chemicals back in 2007. At that time we had representation in India, and business was growing at a steady rate. In March of 2011 at the 3rd PU Tech exhibition in New Delhi - Mr Hemanshu Thakker from Chemex Chemicals called past our booth. It was the first time we had actually met in person after our original telephone/email exchanges.

Like always, at these types of exhibitions, things do tend to get quite busy, but we managed to find some time to bond. Our prior Distributor subsequently decided to merge his business with Chemex's. As such, in October of that year, Chemex Chemicals became our new authorized distributor for the Indian sub-continent. A truly professional team working out of Mumbai where "Quality, Service and Customer Satisfaction" is their Moto and a similar business philosophy to ours where "Business is people doing business with people".

Amongst trading in a range of other Industrial chemicals and additives, and servicing a broad range of industries, Chemex Chemicals are 100% committed to the exclusive supply of our Erapol brand of castable and sprayable polyurethane elastomers, and all ancillary products, across India.

Thank you Hemanshu, Vijay and your team, as we at Era Polymers, certainly appreciate your effort and commitment in working together to fuel the polyurethane growth in your market. And we especially like getting Mr. Hemanshu's philosophical thought for the day. It puts a spring, in everybodys step at Era... and teaches us how to TRY, and become better people, in our journey through life.



MCM Polymers approached us sometime in April 2009 with interest in looking at distributing our range of Polyurethane materials in Israel. At about that same time, we had received a few enquiries for cast elastomers out of Tel Aviv, and some potential customers had also visited our booth at the Europe PU tech exhibition in Holland.

The original company dates back to the early 1970's, and holds vast experience in servicing and supplying the raw material needs for the Polyurethane, Rubber and the Plastics industries in Israel.

We agreed into an agency distribution in the following months, where by MCM Polymers became our exclusive distributor for the Israeli market. Shavit Vos (CEO) of MCM Polymers is dedicated and committed to growing our business there, and exploring new opportunities within the region. Her professionalism and methodical approach to customer liaison and service is second to none. The entire supply chain process is handled by the company, starting from identifying the appropriate product for the application, communication with our technical and export team, and then the ordering process.

Shavit, we thank you for your commitment and dedication, and look forward to continued growth within the existing market, as well as finding new innovative areas of application, for our range of polyurethane products.



# **Herald**

#### **Meet the Era Team**



Rob McLean is Era's National Foam Sales Manager, based out of Adelaide. He's been involved in the foam business for longer than most at Era, and after a short break away from the industry, he relished the opportunity to come back in 2008 to lead our foam business.

He's one of those guys that is quietly spoken, but if you listen to the words, you can't help but be impressed by his knowledge of foams. He's the father of two teenage daughters, which is always good preparation for business negotiations.

Rob is also one of the most adventurous Era staff members. He loves racing motor bikes on track days, and has a mission to scuba dive as much of the world as possible. Mozambique is his favourite dive spot, apart from the Great Barrier Reef. He is also an avid player of Underwater Hockey, and represents his state in this. Believe it or not this is a sport, and Rob is very good at it, so don't try and beat him in a breath holding competition.

John Diaz Quality Manager

John Diaz began work at Era Polymers in 2008 in the physical testing department. Over time, John's role within Era had expanded to make best the use of his engineering background. His roles now, include the management and maintenance of the ISO 9001 accreditation system and NATA accreditation for the Physical Testing Laboratory along with liaising with customers on testing results.

Additionally, as the company expanded its global presence, regulatory matters began to play a larger role in conducting business overseas. As a result, John is now also looking after international regulatory affairs which includes the management of 'REACH' (E.U. classification) and the Globally Harmonised System (GHS) for classicisation of individual products exported overseas.

**Era Polymers** Literature Downloads Don't forget to visit http://www.erapol.com.au/ english/Downloads.html to view or download our latest Brochures, Flyers and Bulletins.

Love is in the air!

THE YEAR OF STATE

Congratulations and best wishes to the newlyweds!

Manisha married Jatinder on 13th July, in Sydney!





Michael married Ong Li Fen on 23rd June, in Singapore!



Congratulations to Hugh Fraser who celebrates his 10 years at Era Polymers!

#### Who's new to the Era Team?

Kaye Crookston Admin -Warehouse (Samos Dio) -**Richard Babos** Blender (Samos Dio) -Scott Heydon Varunita Samli Chemist (Samos Dio) -Peter Woodfield Chemist -National Sales Manager NZ - Craig Bishop

Strategic Alliances



**Perstorp**CAPROLACTONES



























For more information on any of the products featured in this Newsletter please contact Era Polymers on +61 (0) 2 9666 3788 where one of our representatives will be able to assist you. Alternatively email erapol@erapol.com.au