

Welcome to 2016

It seems that 2016 has only just started and we are in March already!

A turbulent start to the year kicked off with the Rand crashing and subsequent settling at far weaker exchange rates to foreign currencies. This has led to a string of increased prices, virtually across the board. Unfortunately this is the reality we live within South Africa, with the low crude oil price preventing it being any worse.

This issue concentrates on technical matters, safety and health.

Looking forward, let's make it as positive a year as we can.

The add resins Team

Acrastrip – a safe alternative to Acetone for cleaning in a GRP workshop



Acrastrip 600 is distributed in Southern Africa by **add resins**. Increasing safety standards and pressure on companies to become more environmentally responsible, coupled with ever increasing acetone prices led us to research a replacement for acetone for the composite industry in South Africa. There are a number of products available in the market place but we chose Acrastrip due to its excellent performance in the workplace and its high level of environmental compliance. In addition Acrastrip is non-flammable - it will not support a flame. This is a major advantage over acetone and a positive factor in reducing the risk of fire in a composite orientated production facility. No more concerns about static sparks or accidental acetone spills mixing with catalyst. Never before has such an efficient, tried and tested, and environmentally friendly product been available to the Composite Industry in South Africa.

Acrastrip 600 is a semi aqueous 100% Acetone replacement developed in conjunction with the US

Environmental Protection Agency and “Designed for the Environment” it is low hazard and non-flammable. Acrastrip 600 can be used with cured/uncured polyester, vinyl ester and epoxy resins as well as with Urethanes and Methacrylate glues. Acrastrip 600 is HAP free and has a very low VOC content. Unlike other Acetone replacement products Acrastrip does not contain harmful Alkalis or toxic solvents; it has a PH of 6.5-7.0 and is 100% Aluminum safe. Acrastrip does not evaporate and can be continually re-used.

Applications:

Acrastrip can be effectively and safely used to clean the following equipment:

- Rollers
- Internal Mix Gun Flush
- External Mix Gun Flush
- Gelcoat Guns
- Putty Rig/Adhesive (weld) equipment purge
- Paint Gun cleaning
- Chopper Gun cleaning
- Pultrusion moulds
- Marble Wash containers
- Methyl Methacrylate glue guns.

Safety – Waste handling of UP Resins and products made of UP Resins

Styrenated resin products are regarded as special waste in many regions, and must therefore be handled according to local rules and regulations. UP resins waste should preferably be cured before being disposed of. The curing process of such waste must be done in a controlled way to avoid self-ignition. Only cure a controllable volume in each container/pail and add no more than the recommended volume of peroxide and possibly accelerator, to prevent it curing too quickly with too high an exotherm. The curing system must be thoroughly mixed into the resin.

Once the curing starts, it is recommended that the container is flushed with cold water to control the reaction. Polyester resin products will self-ignite if the resin temperature reaches approximately 480°C. When cured and cooled, the waste can, in general, be treated as non-hazardous waste.

Waste of other styrenated products and additives, such as low profile additives, fire retardant additives and pigment pastes can be mixed into resin/gelcoat waste in lower volumes. These will then cure into the system when adding accelerator and peroxide.



Always wear the correct safety equipment when handling hazardous materials and decant away from the production area to limit solvent emissions



Safety First

- In the event of an accident, always consult the relevant MSDS for specific health and safety information on material/s in question.
- Always consult your local authority or environmental officer for proper guidance on safe disposal.
- Never mix together organic peroxide and accelerators as this will cause an explosion.

Precautions need to be taken during spraying to avoid static build-up

• Always keep organic peroxide in a separate fireproof store away from direct sunlight or other heat sources.

Safety – Safe handling of constituent materials

Constituent materials such as organic peroxides, fillers and glassfibres, have varying safety considerations. For a safe use, always consult the MSDS for more specific safety information or ask your supplier.

Organic peroxides (catalysts)

Organic peroxides are heat sensitive and thus thermally unstable. Handle them with great care. Observe the maximum storage temperature and avoid any possible contamination with dust, rust and metal particles. Always keep containers closed and strictly follow the required storage rules.

Accelerators and Promoters

Accelerators and promoters, like cobalt compounds, tertiary amines etc, should be handled with care. Again, consult the MSDS for safety information. Accelerators and promoters can react violently with organic peroxides, and should be kept away from direct contact with each other.

Fillers

Most fillers used in the composite industry are regarded as inert materials, and can be treated as inert waste. However, always consult the MSDS for the specific filler type for any possible restrictions.

Glassfibre

Glassfibre can be a skin irritant. Therefore suitable skin and respiratory protection should be worn when handling glassfibres or fabric.

Cleaning Solvents

New types of environmentally friendly cleaning solvents have been introduced to the composite industry for removing polyester resins from manufacturing equipment, work surfaces and production floors. These new cleaning solvents are effectively replacing the traditional more hazardous solvents used by our industry for cleaning, i.e. acetone and methylene chloride. Typically, these new cleaning solvents are having a positive effect on performance, safety in use, regulatory compliance and a low environmental impact. Please contact your resin supplier or distributor to get information about the different cleaning solvents available. Suitable skin and eye protection should always be worn when cleaning your equipment.

Composite dust

Composite dust can be generated during drilling, sawing and cutting operations. The dust may consist of particles with a size well below three microns. These very fine dust particles can create lung damage when inhaled. Always use proper dust extraction equipment.

10 for Jabulani!

Jabu, from our KZN Branch, recently completed his 10th Dusi Canoe Marathon earning his permanent number and joining the ranks of the esteemed Dusi Rat Club. Jabu was racing in a K2 this year, partnered by Mfanafikile Gwala. They completed the race in an impressive time of 12 hours 15 mins - placing 186th in the field. Well Done Jabu we are all very proud of you!



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