



Plastic solution

IP&E reports on how the Mac'Ants Group has, with its plastic blast media addressed the demand for a surface cleaning medium that is efficient, effective and vitally, environmentally safe

The Mac'Ants Group has developed a range of plastic blast media that provides highly controlled cleaning and stripping, importantly without damage to the substrate, while at the same time accommodating specific environmental objectives. The Sheffield-based organisation supplies a choice of plastic materials each designed for specific types of application.

Produced from fully cured thermo-set mouldings, the Mac'Ants plastic products comprise a dry or wet angular stripping media which, when propelled against a painted surface, remove the paint or composite from the substrate to leave a clean, unmarked surface. Although originally designed for aviation applications, the process now satisfies a growing demand that encompasses the automotive, military and electronic sectors as well as other industrial activities such as industrial mould cleaning.

"We have focused our investment in this area on ensuring that the range of plastic media that we offer is equally applicable across diverse market sectors," comments Kent Martin at Mac'Ants. "This has resulted in a choice of material that includes, for example, type II (urea), type III (Melamine) and type V (acrylic) materials while further developments have been engineered to provide a combination of hardness, density, angular cutting and consistent sizing. At the same time we are very happy to custom manufacture for specific application requirements."

By way of illustration, he also draws attention to Mac'Ants 'Avia-Lite' range of plastic abrasives that deliver a high stripping rate and a consistent performance – ideal for paint stripping, deburring, deflashing, and cleaning. Available with a choice of base materials including urea, melamine, acrylic, polyamide and polycarbonate, different levels of performance in terms of abrasiveness and aggression can be specified. Avia Lite Type 3, for example, is thermo-set melamine that provides the highest level of aggression – up to six times that normally offered with urea.

"This focus on building a high technical edge into our products has been recognised across much of our customer base," continues Kent Martin. "Indeed, the approach has not only resulted in our gaining ISO 9001:2000 approved supplier status, but has also led directly to Rolls Royce CSS227 approval and to our becoming the only approved manufacturer to the Mil-P-85891a specification for multiple types of plastic media outside continental America."

Because the use of plastic media provides the ideal combination of control and substrate protection, the development is seen as being of particular note where relatively delicate applications are required. Again, the company highlights paint removal from aircraft during maintenance and refurbishment procedures as well as the loosening of deposits from glass fibre boats as prime

examples where its benefits are well illustrated.

Alongside this general choice of plastic media, however, Mac'Ants has also developed specific products within its range that have been shown to be highly effective for even more precise applications. One example is 'PolyFlash', a polycarbonate de-flashing media, which is formed from extruded polycarbonate rather than the Mil specification Type 6 alternative. PolyFlash is well suited for de-flashing plastics and can also be supplied as cryogenic grade for rubber removal. 'NyFlash' is another example – offering lower density than PolyFlash, it is typically used for de-flashing plastic components or delicate castings and is ideal for use in a wheel or air blast system.

"Apart from the manufacturing and engineering sectors, there are a number of other application areas for plastic media which are becoming increasingly popular," continues Kent Martin. "These include material for blasting buildings and stonework – markedly different from the precision engineering sector but of particular note because of the environmental benefits the products offer."

Each batch of media is assessed in a fully equipped testing facility in Sheffield to ensure consistent quality standards. Product development is continually in the spotlight through a focus on liaising with customers to develop new applications where appropriate – all fully supported by comprehensive technical assistance.

"We are confident that our growing range of plastic media reflects greater awareness of its benefits across our customer base," concludes Kent Martin. "In conjunction with equipment and services from our METS and MSE divisions respectively, we believe this is an area where the growth in sales that we have seen in recent times is set to continue."

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