



ALUMINIUM FINISHING ASSOCIATION

## The Importance of Correct Specification

### Specification in General

The architect should provide the aluminium finisher with a clear, unambiguous specification of the finish required. The responsibility of the specification is, of course, at the heart of the architectural process.

Whereas an architect may spend months developing a project, it is rare that the finisher is involved in the design process. Thus, whilst the architect appreciates the reasons for each and every design decision, the finisher has only the architect's specification to follow. If items are assumed, thus omitted from the specification, or are expressed ambiguously, the errors are significantly more likely to occur. One ambiguity that frequently occurs is the inclusion of different standards with contradictory parameters in the same Z31 specification. This can lead to confusion and even production that differs from that intended by the architect. The most common example is the inclusion of BS6496 and BS EN 12206-1 in one document. Only one specification should be included in the specification.

When finishers are to be contracted on the basis of competitive tender, the specifier must ensure that the resultant tenders are absolutely comparable. This means that the specification must be complete and definitive. Finishers will be expected to offer their most competitive price and will therefore seek to reduce costs. This may be achieved by economising on quality of workmanship, time, testing and quantity and quality of material if such elements are not clearly identified and described. If the resultant tenders differ because of different interpretations of a poorly drafted specification then they are of little use in appointing the most appropriate finisher for the job. Architects may require a confirmed life expectancy for the project. This can be achieved – and guaranteed – by specifying the use of an applicator approved by one or more of the powder manufacturers who offer such a guarantee on their product.

### Specification Breaking

Specification breaking, or non-compliance with contract, will not happen with a reputable finisher who is a member of the Aluminium Finishing Association. However the structure of the building industry is such that frequently the architect will have no direct contact with the sub-contractor or sub-sub-contractor or finisher who is actually employed to fulfil the specification. The longer the chain, the greater the chance for conscious or unconscious specification breaking.

One way that the client, architect, or main contractor can be sure that the architectural aluminium finish supplied complies with the contract requirements is by an appropriate number of independent inspections taking place at the finishing plant. These should be carried out by a completely independent approved authority which should carry indemnity insurance otherwise any subsequent claims will be against the architect's indemnity insurance.

The details contained within a specification are not there without reason. If architects sign completion certificates without being satisfied that the specification has been complied with in full then they are accepting liability quite unnecessarily.

## **How it Happens**

How does specification breaking occur? In particular, where does it lie in the chain between client and finisher?

A specification can be broken at almost any clause and at any point in the construction process. It can happen with the main contractor, with the sub-contractor, with the finisher and it is not unknown for the client to engage in amending a specification. Wherever it might happen, a correct specification initially and rigorous quality control thereafter will prevent such changes feeding through to the final handing over of the project.

## **Architectural Powder Coating**

One example of specification failure and breaking is where the need for marine, swimming pool or aggressive environment is not placed in the original specification or where, in an attempt to minimise cost, this requirement fails to reach the applicator. Worse, the applicator may be asked for a marine guarantee after coating has taken place which may result in the guarantee not being available or being less than expected. Marine guarantees should always be requested at applicator order stage if the project is less than 5km from a salt water environment, be this estuary or open sea.

Concession to, or avoidance of, specification requirements regarding plant, equipment and facilities can result in a sub-standard finish being supplied.

It is common for specifications to require a minimum 25 year guarantee construed under English Law. European fabricators and processors will often only agree shorter periods, and usually these will be construed in the home country of the fabricator or processor. If such guarantees are accepted and there is a subsequent failure in the finish, then the authority agreeing them, the architect, will be liable to the client under English Law.

Where the supply of British Board of *Agriculture* certificates forms part of the specification, it is essential to ensure compliance. Failure to enforce this comparatively simple matter will almost certainly have an adverse effect upon the quality control process.

## **Anodising**

It is important that concession in, or avoidance of, the use of the specified alloy does not occur. Changes in the grade of aluminium used, particularly sheet metal, will lead to unnecessary colour variations.

Where the methods and systems for architectural anodising are clearly specified, changes to the specification may lead to reduced performance on the building. If such changes are recognised and identified by a valuer, they may well reduce the value of the building. As in the previous examples, any claim by the property owner would be against the authority which allowed the concession.

Generally, anodising standards at British, European and ISO levels are now common. Other independent label specifications such as Qualanod also exist. Discussion with an AFA anodiser will ensure sound advice and adherence to an appropriate specification.

There is pressure on architects to ensure that specifications are complete and up to date. Greater importance is being placed on use of independent acceptance test laboratories. These ensure, before completion certificates are signed or warranties accepted, that the architect is totally satisfied that there has been full compliance, and that any concessions have been agreed and properly documented.

## **On Site Care**

Building sites are not the most benign environments for cosmetic finishes. Adequate packaging and handling procedures should be discussed and agreed prior to commencement of work. The degree of protection afforded the finish prior, during and immediately after installation will depend on individual site conditions and the abrasion and scratch resistance of the finish itself. Low tack protective tape can be used, provided that it has been tested and approved by the finishing supplier. Increasingly fabricators are specifying applications of low tack tape by the coating applicator to protect metal during initial transport. In most cases these should not remain in contact with the finish for longer than six months.