

basecoat/primer. In the long term, if the coating is allowed to deteriorate beyond a certain point due to delayed maintenance, it may be necessary to cut back the surface coatings, otherwise the new coat will not achieve a satisfactory bond. However, it is not necessary to 'burn' off the existing finish as required with oil paints.



Figure 10.2 Translucent stain

10.4 Stains

Exterior stains, unlike traditional paints, are at least partially absorbed into the surface of wood. They contain fungicides and are often known as 'preservative' stains. However, this is somewhat misleading because this fungicide provides little protection to the substrate and is no substitute for full immersion or pressure/vacuum impregnation of the wood components with preservative before painting.

Stains achieve a better bond with more porous woods but they may not be as effective on the denser hardwoods. Some of these stains may have virtually no surface build and these 'low-build' stains will allow more absorption of moisture into the wood substrate. They may be adequate for situations where any movement of the timber due to changing moisture content is not a particular problem (eg cladding boards), but they are less suitable for joinery where increased moisture movement could stress glued joints or cause distortion of frame members. 'Medium-' or 'high-build' stains are partially film forming and therefore more resistant to moisture ingress, although they will not totally prevent moisture absorption. Because they are also more resistant to abrasion and erosion, while remaining flexible and vapour permeable, medium- and high-build stains are preferred for external joinery such as windows.



Figure 10.3 Opaque stain

Clear stains fully reveal the texture of wood (*Figure 10.2*), but provide little protection against the effects of UV light and will not prevent the eventual loss of natural colour or changes to the surfaces of softwood. They will also degrade quickly due to the penetration of the UV light, although some may contain UV filters to slow down this effect.

Semi-translucent stains that colour the surface of the wood without obscuring the natural texture offer better UV resistance. Medium-build stains of this type achieve a maintenance interval of about five to six years. They will require less preparation before recoating than conventional paints.

The more opaque the finish, the more it protects against UV light. Fully opaque coatings (*Figure 10.3*) can provide the protection to the substrate for 10 or more years before maintenance. Whilst opaque stains (although no longer described as such under BS EN 927) conceal the natural colour of the wood, they are generally thinner than paints and will not conceal surface texture, knots or small splits to the same extent as paint.

10.5 Profile design and protection of coatings

Whether wood windows are site or factory-finished, there are particular profile details that will help to prolong the life of any coating.

In order to ensure quick drainage, design all exposed horizontal surfaces of a window to slope away from the building face, preferably at a pitch of not