

Silicone Sealants.... an ultimate guide....

Sealants are an area which often causes confusion not only to the DIY user but also to the professional. Using the incorrect sealant can not only cost time but also have a financial impact. So we have put together a quick user guide for choosing the correct sealant for your application.

SILICONE SEALANTS

Silicone Sealants are the most common type of sealant used in the Building/DIY industry. There are three main types of silicone sealant; High Modulus Acetoxy, Low Modulus Neutral and Low Modulus Acetoxy. In order to choose the correct silicone sealant you need to take into account the type of cure and more importantly the modulus.

TYPES OF CURE

There are two main types of cure; Acetoxy and Neutral. Both curing types cure by reaction with atmospheric moisture. Acetoxy cure sealants give off a vinegary odour whilst curing, are generally high modulus and faster curing than neutral cure sealants. Whereas, Neutral cure sealants are low modulus and almost odourless.

MODULUS

There are two types of modulus; Low Modulus and High Modulus. Low Modulus sealants accommodate more movement - this is evident as they are softer to touch and are best used for exterior applications. High Modulus sealants accommodate less movement and are best used for interior applications.

SEALANT USES

High Modulus Acetoxy Silicone Sealants are ideal for interior applications such as interior draught sealing around windows or doors, sealing kitchen units and

electrical components. It also has many sanitary applications such as sealing around baths, showers, glass and tiling but ensure the sealant contains a fungicide.

Low Modulus Neutral Silicone Sealants are ideal for exterior applications such as the perimeter sealing of UPVC Window or Door Frames, panel joints and joints in concrete and other porous cement based materials as it has more of a weatherproof seal, excellent adhesion and accommodates more movement.

Low Modulus Acetoxy Silicone Sealants are the cost effective “all-rounders”, they are suitable for a wide variety of general building, sanitary (when they contain a fungicide), glazing interior and exterior applications and adhere to many common building material. However it is important to note that they do not have the same life span or adhesion properties as the more specialised alternatives particularly on exterior applications.

Specialised Silicone Sealants

Food Grade Silicone Sealants are designed for use in areas where food contact may occur including contact with raw meat. They are frequently used in refrigeration units and cold room environments due to their temperature and mildew resistance.

High Temperature Silicone Sealants are basically gasket sealants designed for forming gasket joints where an extremely high temperature resistance is necessary. They can also be used to seal and bond oven doors.

Aquarium Sealants are another form of silicone sealant, the only difference is they are non-toxic to fish and reptiles and therefore ideal for sealing aquariums and terrariums.

Other Sealants

ACRYLIC SEALANTS are the economical, paintable alternative to silicones; they are suitable for sealing and filling joints around aluminium, wood and UPVC window and door frames. However the external application of this form of sealant

is very much ruled by the weather, conditions must be dry and preferably warm when applying. They also do not offer the same flexibility as a silicone.

INTUMESCENT SEALANTS are designed for fire retarding constructions and generally have acoustic properties. They are suitable for indoor joints where a fire retardant seal is required to prevent the passage of smoke and vapours. For exterior use, use a fire retardant silicone.

MS POLYMER SEALANTS are another “all rounder”; they have great durability, flexibility, excellent adhesion to non-porous surfaces, will bond to damp surfaces and are paintable. They are best used as an adhesive or sealant on surfaces that experience frequent vibration or strain. They are also ideal for gluing panels, skirting boards, windows, mirrors and insulation materials.

POLYSULPHIDE SEALANTS are designed to seal joints subject to movement where a tough, flexible, watertight seal is required. They offer the best option for expansion joints.

POLYURETHANE SEALANTS have first rate resistance to water, permanent elasticity under all climate conditions and excellent adhesion to metal and fibreglass; they are most commonly used for car, caravan and mobile home applications. Low Modulus Polyurethane Sealants are also safe to use in aquariums and terrariums, as once they are fully cured harmful solvents have evaporated making them inert.

ROOF AND GUTTER SEALANTS are rubberised sealants specially developed for repairing leaking gutters, downpipes and flashings. They can also be used for bedding roof sheets and felts.