

Dow Corning

794 silicone sealant

Glazing and construction (previously DC 916)

DESCRIPTION

Dow Corning 794 is a one-component, clear, neutral curing silicone sealant for use in glazing and curtain walling applications. It has excellent adhesion to many porous and non-porous substrates.

USES

- For weathersealing between aluminium, UPVC and wood door or window frames and most common construction substrates.
- For glazing applications that utilise polycarbonate sheeting.
- Ideal as mirror adhesive.

FEATURES & BENEFITS

- 100% silicone rubber.
- Clear neutral curing silicone sealant.
- Fast cure
- Excellent adhesion to polycarbonate.
- Excellent unprimed adhesion to many porous and non-porous construction substrates.
- Excellent weathering characteristics including resistance to ozone, UV radiation and temperature extremes.
- Non-slump.
- No maintenance required.
- Long service life.

SURFACE PREPARATION

Joint preparation

Cleaning

Ensure that all surfaces are clean, dry, sound and free from frost. Clean all joints of release agents, water repellants, dust, dirt, old sealants and other contaminants that could impair adhesion. Metal surfaces should be

TYPICAL PHYSICAL PROPERTIES	
These values are intended for use in preparing specifications.	
Cure type	Alkoxy
Flow, sag or slump	< 2,5 mm
Extrusion rate, gr/min	230
Penetration (1/10 mm)	130
Working time	10 minutes
Tack free time	20 – 40 min.
Skin over time	10 – 20 min.
Staining	None
Modulus at 100% elongation	0,35 MPa
Elastic recovery	> 90%
Cure time	24 hours
Movement capability	± 50%
Service temperature range	-50° C to +150° C
Hardness (Shore A)	25
Tensile strength	0,5 MPa
Elongation at break	375%
Specific gravity	1,47
Colour	Clear

SURFACE PROPERTIES			
This table is a guide only			
Substrate	Surface cleaning	Recom. degreasing	Constr. Primer
Anodised or mill finished aluminium.	Degrease remove all loose particles and dust.	Methylated spirits, isopropyl alcohol	None required
Treated hard wood, UPVC, polycarbonate	As above	As above	None required
Stainless steel	As above	As above	1 200 NP
Granite, marble	As above	As above	Barrier 84

Masonry, concrete	As above	As above	None required
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cleaned and degreased by wiping with a solvent on an oil and lint free cloth. Suitable solvents may include acetone, methyl ethyl ketone (MEK), or methylated spirits.

Note:

- Before using solvents on plastic sheeting it is recommended to check that the solvent does not attack or degrade the surface of the plastic sheet.
- When using any solvent, always provide adequate ventilation. Avoid heat, sparks and naked flames. Observe and follow all precautions listed on solvent container label.

Back-up material

abe duracord closed cell polyethylene backer rod is recommended as a back-up material. Low tack polyethylene tape should be used in joints too shallow to allow a back-up material.

Masking

Areas adjacent to the joints should be masked with tape to prevent contamination of substrates and ensure a neat sealant line. Masking tape should be removed immediately after tooling.

Finishing

The joint should be 'tooled' within five minutes of application to ensure good contact between the sealant and the substrate. Tooling of the sealant also gives a smooth, professional finish.

Revision 9203



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Technical data sheet

abe Construction Chemicals (Pty) Ltd. P.O. Box 23053, Isipingo, 4110, South Africa. 7 Wilcox Road, Isipingo, 4110 Tel. (031) 913 5400

BONDING / PRIMING

When used in conjunction with most common construction substrates, a primer is not required.

MIXING

No mixing required. Use straight from cartridge.

COVERAGE

Estimating sealant requirements Linear metres per 310 ml cartridge								
Width (mm)	5	7	10	12	16	20	25	
5	12,4	10,5	6,0	5,5	4,0	3,1	2,5	
7	-	6,0	4,5	4,0	3,0	2,2	1,5	
10	-	-	3,0	2,5	2,0	1,5	1,2	
12	-	-	-	2,2	1,6	1,3	1,0	

JOINT DESIGN

When designing joints using **Dow Corning 794**, the minimum joint width should be 6 mm. For joints between 6 mm - 12 mm wide, a seal depth of 6 mm is recommended.

For joints above 12 mm wide, a width to depth ratio of 2:1 should be used, up to a maximum depth of 12 mm.

For joint dimensions greater than 25 mm wide contact **abe** Technical Services Department.

APPLICATION

Cut the tip of the nozzle at the angle required. Apply **Dow Corning 794** from a caulking gun using sufficient pressure to ensure adequate contact with sides of joint. The surface of the joint may be smoothed over with a little liquid soap and water to ensure good contact between the sealant and substrate.

CLEANING

Excess sealant should be cleaned off tools and non-porous surfaces whilst in an uncured state. Sealant adhering to porous surfaces should be left until just cured and then removed by abrasion or other mechanical means. Care must be taken not to discolour plastic surfaces.

Tools, brushes and mixing equipment should be cleaned immediately after use and before material has set with **abe super brush cleaner** followed by washing with soap and water.

PROTECTION ON COMPLETION

As **Dow Corning 794** is UV resistant and is suitable for internal and external use. No protection is required.

TEMPERATURE AND RELATIVE HUMIDITY

Application temperature: 0° C - +40° C

MODEL SPECIFICATION

One-component, neutral cure, low modulus, mildew resistant silicone for plastics and glass.

The sealant will be **Dow Corning 794**, a one-component neutral curing silicone sealant applied in accordance with the recommendations of **abe Construction Chemicals**. The sealant will meet the requirements of BS 5889 type A, TT-S-00230C and TT-S-1543A class A (com-NBS) for building sealants, ASTM C 920 Type S, grade NS, class 25.

PACKAGING

Dow Corning 794 is supplied in 310 ml cartridges, in boxes of 12.

HANDLING & STORAGE

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

LIMITATIONS

Dow Corning 794 should not be used on substrates that bleed oils, plasticizers or solvents. It is not recommended for use with certain plastics, particularly flexible plasticised types. **Dow Corning 794** is not recommended for structural glazing or insulated glazing applications. Consult **abe** Technical Services Department for further advice in specific applications.

TEST COMPLIANCE

Dow Corning 794 meets or exceeds the following specifications:

- B.S. 5889 type A.
- DIN 18 540-F.
- DIN 18 545 Gruppe E.
- DIN 52 452 T4.
- SNJF first category.

- TT-S-001543A and TT-S-00230C (COM-NBS) class A, ASTM specification C-920 type S, grade NS, class 25.

HEALTH & SAFETY

Dow Corning 794 will release methylethylketoxine (MEKO) when curing.

Dow Corning 794 is alkoxy and should not be allowed contact with skin and eyes. Avoid inhalation of fumes. The use of gloves, eye protection and masks is advised. Splashes into eyes should be washed immediately with plenty of clean water and medical advice sought.

Cured Dow Corning 794 is inert and harmless.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **abe Construction Chemicals** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **abe** has no direct or continuous control over where and how **abe** products are applied - accept any liability either directly or indirectly arising from the use of **abe** products, whether or not in accordance with any advice, specification, recommendation, or information given by the company.

FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements. **abe Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in building and construction technology.

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