

# Instructions for solvent cement jointing of PVC-U



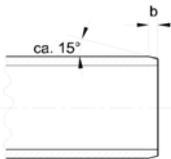
## Instructions for solvent cement jointing of PVC-U

### Important

Always follow the instructions of the manufacturer of the solvent cement and cleaner. The following instructions are valid if Tangit cleaner and Tangit solvent cement are used ([www.tangit.com](http://www.tangit.com)).

**Preparations:** The pipe must be cut off at right angles. Remove the inside edges and chamfer the outside ones as illustrated in the sketch. Only then is an optimal solvent cemented joint possible.

**Important:** Well-chamfered pipe ends prevent the layer of cement from being removed as the pipe is inserted into the fitting.



Pipe outside diameter mm	b
6 - 16 mm	1 - 2 mm
20 - 50 mm	2 - 3 mm
63 - 225 mm	3 - 6 mm
250 - 400 mm	6 - 8 mm

Wipe the outside of the pipe and the inside of the socket with a clean cloth to remove obvious dirt. Marking the jointing length on the pipe end makes it possible to check afterwards whether the pipe has been inserted to the full extent of the socket.

**Note:** If the outside diameter of the pipe and the inside diameter of the socket are at opposite extremes of their tolerances, then the pipe cannot be inserted dry into the fitting socket. This will only become possible once the cement has been applied.

### Cementing

Clean the outside of the pipe end and the inside of the socket **thoroughly** with cleaner and absorbent paper. Use a fresh piece of paper for each component. Remove any condensation which may have formed on the parts.

**Important:** Pipe end and fitting socket must be dry and free from grease and dirt and must not be touched after cleaning.

PVC-U pipes may have a waxy surface. To ensure proper jointing in such a case the cleaning process must be repeated until the pipe surface becomes matt to the eye.

PVC-U pipes should be cemented at temperatures between 5 °C and 40 °C. Take the following protective measures if the temperatures deviate from the above:

At lower temperatures, condensation or frost which may have formed must be removed, e. g. with warm air. Cement and cleaner should be stored at room temperature.

Avoid uneven overheating (→ shorten the opening time) when cementing at higher temperatures by protecting the jointing area from direct sunlight.

The quick curing time of the cement necessitates that the joint is made within the opening time after application of the cement has started. The opening time of the PVC-U cement varies with the ambient temperature and the thickness of the cement applied.

Begin by applying a normal layer of cement to the fitting socket and then a thicker one to the pipe end with firm brush pressure. **Work in well.** The brush strokes should always be in an axial direction.

To ensure that both jointing surfaces are completely covered with a smooth, even layer of cement, the brush should be generously loaded with cement.

### Range of dimensions up to d75

The cement joints can be produced by one person.

#### Jointing

After the cement has been applied, insert the pipe to the full depth of the socket immediately without twisting and bring them into the correct alignment. Ensure that the outlet of the fitting is in the correct position. Hold them briefly in this position to allow the cement to set.

#### Waiting time between cementing

Wait at least 5 minutes before the next joint, extend the waiting time at temperatures under 10 °C to 15 minutes.

### Range of dimensions d90 to d225

The fitting socket and end of pipe should be coated with cement simultaneously by two persons, otherwise the opening time of the cement cannot be observed.

#### Jointing

After the cement has been applied, insert the pipe to the full depth of the socket immediately without twisting and bring them into the correct alignment. Ensure that the outlet of the fitting is in the correct position. Hold them briefly in this position to allow the cement to set.

#### Waiting time between cementing

Wait at least 5 minutes before the next joint, extend the waiting time at temperatures under 10 °C to 15 minutes.

### Range of dimensions d250 to d400

Deviating from the usual method of application, pour the cement directly from the tin onto the middle of the cementing surface and distribute first radially and then axially all over with a flat brush. Make sure that the cement layer is consistent and covers the entire surface as appropriate for the larger tolerances.

Apply a thinner layer of cement in the fitting than on the pipe ends. The cementing of pipe work in this range of dimensions should be carried out by at least 2 persons. The minimum thickness of the cement layer for fittings is 1 mm, apply more generously on the pipe ends.

#### Jointing

After applying the cement, the pipe and fitting should be slowly pushed together to the stop or the mark without twisting by 3-4 persons and aligned. Ensure that the outlet end of the fitting is in the correct position. Hold the joint in this position for 1 minute.

#### Waiting time between cementing

A waiting time of 15 minutes should be observed before further jointing; this time should be increased to 30 minutes at temperatures below 10 °C.

Remove any surplus cement immediately, using absorbent paper.

A bead of excess solvent cement around the complete external circumference of the joint and a slightly smaller bead again around the complete internal circumference show that the joint has been performed correctly.

After use, clean the brush of excess cement with dry absorbent paper and then clean thoroughly using cleaner. Brushes must be dry before being re-used (shake out).

Do not close off cement pipelines during the drying process. This is particularly important at temperatures below + 5 °C, when there is otherwise a danger of damaging the material.

After the drying process the pipelines can be filled. It is recommended to flush the pipeline before use, and leave it filled with water if it is not directly used. Do not use compressed air for flushing.

### Drying period and pressure testing

The drying period of the cement before application of the test or working pressure depends on the drying temperature, the dimension and the fit conditions.

If the pipe is only subjected to the operating pressure, e. g. after adaptation or repair work, the following rule of thumb for the drying waiting time applies:

**1 hour waiting time per bar operating pressure.**

### Safety precautions

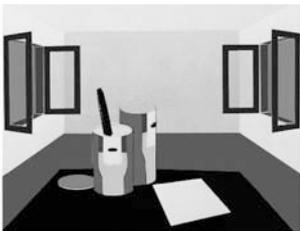
Cement and cleaner contain highly volatile solvents. This makes good ventilation or adequate fume extraction essential in closed spaces. Since the solvent fumes are heavier than air, extraction must occur at floor level, or at least below the working level. Place paper which has been used for cleaning or for the removal of surplus cement into closed containers to minimise the amount of solvent fumes in the air.

Cement and cleaner are inflammable. Extinguish open fires before commencing work. Switch off unprotected electrical apparatus, electric heaters, etc. Do not smoke! Discontinue any welding operations. Furthermore, observe all instructions issued by the solvent cement manufacturer (e. g. label of the tin and any supplementary documentation).

Protect pipes and fittings from spilled solvent cement, cleaner and absorbent paper which has been used to wipe off cement. Do not dispose of surplus solvent cement or cleaner in drainage systems.

The use of protective gloves is recommended to avoid contact with skin. If the cement or the cleaner get in contact with eyes, rinse immediately with water. Consult a doctor! Immediately change clothes that have solvent cement on them.

Always obey the safety regulations issued by the authorities responsible.



Adequate ventilation of the workplace

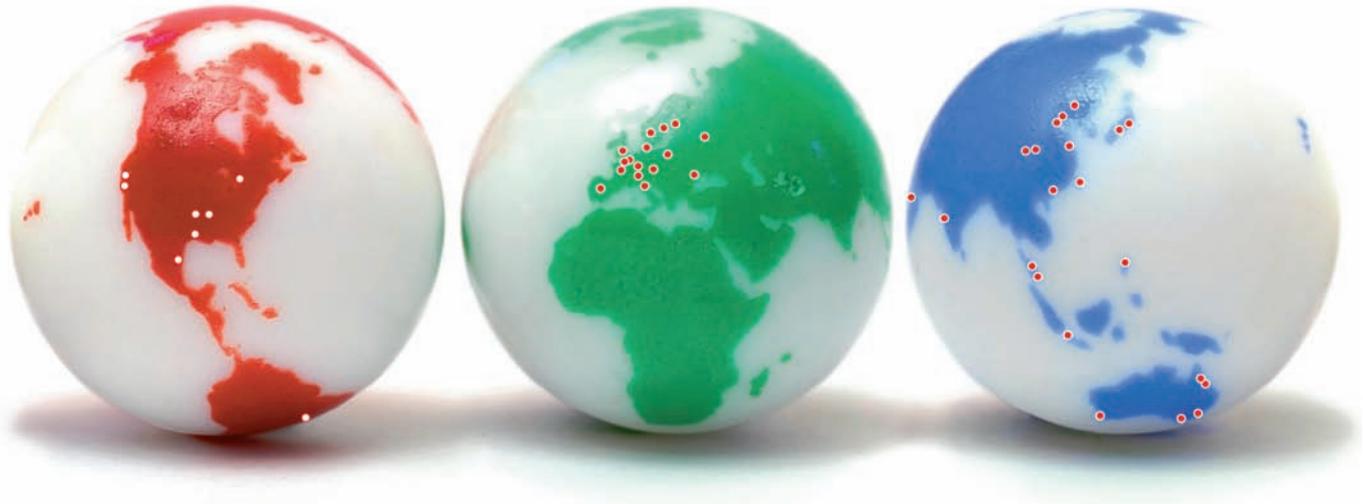


No open flames when cementing. No smoking.

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[www.tp-piping.com](http://www.tp-piping.com)



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Georg Fischer Central Plastics  
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Buenos Aires, Argentina  
Phone +5411 4512 02 90  
gfcentral.ps.ar@georgfischer.com

## Australia

Georg Fischer Pty Ltd  
Riverwood NSW 2210 Australia  
Phone +61(0)2 9502 8000  
australia.ps@georgfischer.com  
www.georgfischer.com.au

## Austria

Georg Fischer  
Rohrleitungssysteme GmbH  
3130 Herzogenburg  
Phone +43(0)2782 856 43-0  
austria.ps@georgfischer.com  
www.georgfischer.at

Georg Fischer Fittings GmbH  
3160 Traisen  
Phone +43 (0)2762 90300  
fittings.ps@georgfischer.com  
www.fittings.at

## Belgium/Luxembourg

Georg Fischer NV/SA  
1070 Bruxelles/Brüssel  
Phone +32(0)2 556 40 20  
be.ps@georgfischer.com  
www.georgfischer.be

## Brazil

Georg Fischer Ltda.  
04795-100 São Paulo  
Phone +55(0)11 5525 1311  
br.ps@georgfischer.com  
www.georgfischer.com.br

## Canada

Georg Fischer Piping Systems Ltd  
Brampton, ON L6T 4E3  
Phone +1(905)792 8005  
Fax +1(905)792 6667  
www.georgfischer.ca  
ca.ps@georgfischer.com

## China

Georg Fischer  
Piping Systems Ltd Shanghai  
Pudong, Shanghai 201319  
Phone +86(0)21 58 13 33 33  
china.ps@georgfischer.com  
www.georgfischer.cn

Chinaust Plastics Corp. Ltd.  
Songlindian, Zhuozhou city,  
Hebei province, China, 072761  
Phone +86 312 395 2000  
Fax +86 312 365 2222  
chinaust@chinaust.com  
www.chinaust.com.cn

## Denmark/Iceland

Georg Fischer A/S  
2630 Taastrup  
Phone +45 (0)70 22 19 75  
info.dk.ps@georgfischer.com  
www.georgfischer.dk

## Finland

Georg Fischer AB  
01510 VANTAA  
Phone +358 (0)9 586 58 25  
Fax +358 (0)9 586 58 29  
www.georgfischer.fi  
info.fi.ps@georgfischer.com

## France

Georg Fischer SAS  
95932 Roissy Charles de Gaulle Cedex  
Phone +33(0)1 41 84 68 84  
fr.ps@georgfischer.com  
www.georgfischer.fr

## Germany

Georg Fischer GmbH  
73095 Albershausen  
Phone +49(0)7161 302-0  
info.de.ps@georgfischer.com  
www.georgfischer.de

## India

Georg Fischer Piping Systems Ltd  
400 076 Mumbai  
Phone +91 224007 2001  
in.ps@georgfischer.com  
www.georgfischer.in

## Italy

Georg Fischer S.p.A.  
20063 Cernusco S/N (MI)  
Phone +3902 921 861  
it.ps@georgfischer.com  
www.georgfischer.it

Georg Fischer TPA S.r.l.  
IT-16012 Busalla (GE)  
Phone +39 010 962 47 11  
tpa.ps@georgfischer.com  
www.georgfischer.it

## Japan

Georg Fischer Ltd  
556-0011 Osaka,  
Phone +81(0)6 6635 2691  
jp.ps@georgfischer.com  
www.georgfischer.jp

## Korea

Georg Fischer Piping Systems  
Guro-3 dong, Guro-gu, Seoul, Korea  
Phone +82(0)2 2081 1450  
Fax +82(0)2 2081 1453  
kor.ps@georgfischer.com  
www.georgfischer.kr

## Malaysia

George Fischer (M) Sdn. Bhd.  
40460 Shah Alam, Selangor Darul Ehsan  
Phone +60 (0)3 5122 5585  
my.ps@georgfischer.com  
www.georgfischer.my

## Mexico/Northern Latin America

Georg Fischer S.A. de C.V.  
Apodaca, Nuevo Leon  
CP66636 Mexico  
Phone +52 (81)1340 8586  
Fax +52 (81)1522 8906  
mx.ps@georgfischer.com  
www.georgfischer.mx

## Middle East

Georg Fischer Piping Systems  
Dubai, United Arab Emirates  
Phone +971 4 289 49 60  
info.export@georgfischer.com  
www.export.georgfischer.com

## Netherlands

Georg Fischer N.V.  
8161 PA Epe  
Phone +31(0)578 678 222  
nl.ps@georgfischer.com  
www.georgfischer.nl

Georg Fischer WAGA NV  
NL-8160 AG Epe  
Phone +31 (0)578 678 378  
waga.ps@georgfischer.com  
www.waga.nl

## Norway

Georg Fischer AS  
1351 Rud  
Phone +47(0)67 18 29 00  
no.ps@georgfischer.com  
www.georgfischer.no

## Poland

Georg Fischer Sp. z o.o.  
05-090 Sekocin Nowy  
Phone +48(0)22 31 31 0 50  
poland.ps@georgfischer.com  
www.georgfischer.pl

## Romania

Georg Fischer  
Piping Systems Ltd  
020257 Bucharest - Sector 2  
Phone +40(0)21 230 53 80  
ro.ps@georgfischer.com  
www.export.georgfischer.com

## Russia

Georg Fischer Piping Systems  
Moscow 125047  
Tel. +7 495 258 60 80  
ru.ps@georgfischer.com  
www.georgfischer.ru

## Singapore

Georg Fischer Pte Ltd  
528 872 Singapore  
Phone +65(0)67 47 06 11  
sgp.ps@georgfischer.com  
www.georgfischer.sg

## Spain/Portugal

Georg Fischer S.A.  
280046 Madrid  
Phone +34(0)91 781 98 90  
es.ps@georgfischer.com  
www.georgfischer.es

## Sweden

Georg Fischer AB  
117 43 Stockholm  
Phone +46(0)8 506 775 00  
info.se.ps@georgfischer.com  
www.georgfischer.se  
www.georgfischer.fi

## Switzerland

Georg Fischer  
Rohrleitungssysteme (Schweiz) AG  
8201 Schaffhausen  
Phone +41(0)52 631 30 26  
ch.ps@georgfischer.com  
www.piping.georgfischer.ch

## Taiwan

Georg Fischer Piping Systems  
San Chung City, Taipei Hsien  
Phone +886 2 8512 2822  
Fax +886 2 8512 2823  
www.georgfischer.tw

## United Kingdom/Ireland

Georg Fischer Sales Limited  
Conventry, CV2 2ST  
Phone +44(0)2476 535 535  
uk.ps@georgfischer.com  
www.georgfischer.co.uk

## USA/Caribbean

Georg Fischer LLC  
Tustin, CA 92780-7258  
Phone +1(714) 731 88 00  
Toll Free 800/854 40 90  
us.ps@georgfischer.com  
www.gfpiping.com

Georg Fischer Central Plastics LLC  
Shawnee, OK 74801  
Phone +1(405) 273 63 02  
gfcentral.ps@georgfischer.com  
www.centralplastics.com

## International

Georg Fischer  
Piping Systems (Switzerland) Ltd.  
8201 Schaffhausen/Switzerland  
Phone +41(0)52 631 30 03  
Fax +41(0)52 631 28 93  
info.export@georgfischer.com  
www.export.georgfischer.com

