Kiwa Covenant
K93663/01

Issued 2017-01-01

Replaces

CPVC solvent cements for CPVC pipes and fittings

STATEMENT BY KIWA
With this Kiwa Covenant, issued in accordance with the Kiwa Regulations for Product Certification and with Kiwa Manual K15013 for Kiwa Covenants for products and processes, Kiwa declares that legitimate confidence exists that the products supplied by

Bison International

as specified in this Kiwa Covenant and marked with the Kiwa®-mark in the manner as indicated in this covenant may, on delivery, be relied upon to comply with:

ASTM F493 “Standard Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings”

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Kiwa

Publication of the covenant is allowed.

Advice: consult www.kiwa.nl in order to ensure that this covenant is still valid.

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Certification process consists of initial and regular assessment of:
- **quality system**
- **product**

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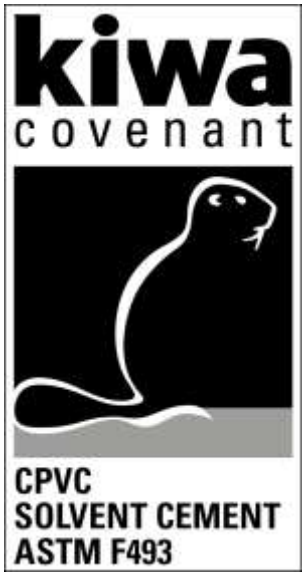
289/150609

CPVC solvent cements for CPVC pipes and fittings

Certified products
GRIFFON HT-120 Flowguard Yellow
GRIFFON HT-120 Flowguard Orange

Technical specification of the products
The products as specified below fulfil the requirements of ASTM F493 “Standard Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings”.

Marking
The following marks and indications must be provided on each product packaging in a clear, legible and indelible way:
- the manufacturer’s or suppliers name and trade mark or identification mark of the adhesive;
- the Kiwa Covenant mark, as shown below here, “CPVC solvent cements ASTM F493” and Kiwa Covenant number ‘K93663/01’;
- the type of plastics piping system for which the adhesive is suitable application area: CPVC;
- the batch number;
- the date of manufacturing of “use before date”, and a statement to the effect that the adhesive has a shelf life of minimum 12 months when stored in unopened containers in accordance with the manufacturer’s instructions;
- Any safety precautions and instructions relating to use and storage.



Application and use
The GRIFFON HT-120 (Yellow and Orange) are solvent cements for chlorinated polyvinylchloride (CPVC) plastic pipe, tubing and socket-type fittings.

Recommendations for customers
Check at the time of delivery whether:
- the supplier has delivered in accordance with the agreement;
- the mark and the marking method are correct;
- the products show no visible defects as a result of transport etc.

If you should reject a product on the basis of the above, please contact:
- Bison International

and, if necessary,
- Kiwa Nederland B.V.

Partner for progress

PREFACE

This Kiwa Covenant has been prepared by the Technical Committee “Adhesives and lubricants” of Kiwa Nederland B.V. accepted by the Kiwa Committee of Covenant (KCC). The KCC also supervises the certification activities and where necessary requires the Kiwa Covenant to be revised.

This Kiwa Covenant will be used by Kiwa in conjunction with the Kiwa-Regulations for Product Certification. This regulation details the method employed by Kiwa for conducting the necessary investigations prior to issuing the product certificate and the method of external control. The inspection frequency is determined by the above mentioned Technical Committee and Kiwa Committee of Covenant.

Covenant

CPVC solvent cements for CPVC pipes and fittings

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1 Product information

The products GRIFFON HT-120 Yellow and Orange consist of a solvent solution of CPVC. The colour of the products are Yellow and Orange. GRIFFON HT-120 is classified as a heavy bodied cement. The products have a thixotropic behaviour.

2 Application and use

GRIFFON HT 120 Yellow and Orange are used for joining pipes, sleeves and fittings with press and loose fit (gap filling) in pressurised and drain systems. Applicable for cold and warm water up to 95°C. Suitable for pipe systems with cylindrical or conical fittings with diameters ≤ 315 mm (12”). Max. 25 bar (363 psi) (PN 25) for diameters ≤ 110 mm (4"). Max. 16 bar (232 psi) (PN 16) for diameters ≤ 250 mm (10"). Max. 10 bar (145 psi) (PN 10) for diameters ≤ 315 mm (12"). Maximum tolerance 0.8 mm diametrical clearance / 0.2 mm press fit. Suitable for pipe systems conforming to EN 1566, EN ISO 15877-1 and ASTM D2846 Schedule 40 & 80.

3 Product properties

General requirements
Material shall meet the general requirements according to ASTM F493.

Product characteristics

Description	Typical value
Resin content	21,5-23,5 %
Viscosity class	heavy-bodied
Shelf life stability Storage conditions between +5ºC and +25ºC, dry environment	24 months
Density	approx. 0,99 g/cm^3
Flashpoint	< 21 ºC

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4 Quality system requirements

4.1 General

This chapter contains the requirements that have to be fulfilled by the manufacturer's quality system.

4.2 Manager of the quality system

Within the manufacturer's organisational structure an employee must be appointed who is in charge of managing the quality system.

4.3 Internal quality control/quality plan

As part of the quality system the manufacturer must implement an internal quality control schedule (IQC-scheme).
In this IQC-scheme the following must be demonstrably recorded:

- which aspects are inspected by the manufacturer;
- according to which methods these inspections are carried out;
- how often these inspections are carried out;
- how the inspection results are registered and stored.

The ICQ-schedule must be detailed in such a way that it provides Kiwa sufficient confidence that requirements will be continuously fulfilled.

4.4 Procedures and work instructions

The manufacturer must be able to submit:

- procedures for:
  - the handling of non-conforming products;
  - corrective actions in case non-conformities are found;
  - the handling of complaints regarding the products and / or services supplied;
- the work instructions and inspection sheets in use.
- instructions for packaging and closing off of products during storage and transport.

4.5 External inspection

The manufacturer's quality system shall be assessed by Kiwa with regard to at least the aspects mentioned in the Kiwa-Regulations for Product Certification.
The Kiwa Committee Covenant will determine the inspection frequency in consultancy with the Technical Commmittee of the Covenant. At the time of validation of this Covenant this frequency has been fixed at 2 inspection visits per year.

4.6 Quality control of products

The following routine tests shall be carried out on production lots according to the test methods mentioned in this covenant or otherwise mentioned:

a) viscosity
b) resin content
c) shear strength
d) density

4.7 Sampling, test material and test pieces

4.7.1 Sampling

The sample shall be representative for the product to be checked and been taken out of a normal production lot.

4.7.2 Test material

A representative sample of the adhesive shall be collected and tested in accordance with ISO 15605 and prepared for testing according to EN 1067.

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5 Summary of tests and inspections

Within the scope of pre-certification, Kiwa has ascertained that the manufactured products and the manufacturer's IQC scheme meet the quality requirements and technical specifications as laid down in this Covenant.
Within the framework of this Covenant agreement Kiwa carries out:

- Inspection visits at the production location;
- Inspection of the manufacturer's quality system;
- Sampling and product tests according to ASTM F493;
- Inspection of product marking.

5.1 Test matrix

Description of requirement	**ASTM F493 section**	**Tests within the scope of**		
		Pre-certification	**Supervision by Kiwa after granting of Covenant[1])**	
			inspection	**frequency**
Material				
CPVC resin type	4.1	X	X[2)]	1x / year
Use of rework material	4.2	X	X[2)]	1x / year
Free-flowing, absence of lumps, undissolved resin, or any foreign matter	4.3	X	X[2)]	1x / year
Absence of gelation and stratification	4.4	X	X[2)]	1x / year
Use of inert fillers and colorants	4.5	X	X	1x / 5 years
Solvents used in the formulation	4.6	X	X[2)]	1x / year
Resin content	5.1	X	X	1x / 5 years
Dissolution	5.2	X	X	1x / 5 years
Viscosity	5.3	X	X	1x / 5 years
Shelf Stability	5.4	X	X	1x / 5 years
Hydrostatic burst strength	5.5+5.6	X	X	1x / 5 years
Marking		X	X	2x / year

1) When significant changes of the product or production process occur the performance requirements have to be determined once again.
2) All product properties which can be determined within the inspection time (maximum 1 day) are determined by the inspector or by the certificate holder in presence of an inspector. When this is not possible arrangements, how inspection will take place, will be made for this aspect between the CB and the certificate holder.

5.2 Surveillance of internal quality control scheme

During every inspection the IQC scheme of the supplier will be evaluated and validated.

CPVC solvent cements for CPVC pipes and fittings

List of mentioned standards

Number	Title
ASTM F493	Standard specification for solvent cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings
ASTM D2846	Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems
EN 1566	Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure. Chlorinated poly(vinyl chloride) (PVC-C). Specification for pipes, fittings and the system
EN ISO 15877-1	Plastics piping systems for hot and cold water installations - Chlorinated poly(vinyl chloride) (PVC-C)
ISO 15605	Adhesives - Sampling
EN 1067	Adhesives - Examination and preparation of samples for testing