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# **FloPlast** PVC-U RAINWATER SYSTEMS

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#### MATERIAL SPECIFICATION

FloPlast products provide the benefits of plastics and unless otherwise specified, are manufactured in unplasticised polyvinyl chloride (PVC-U) and comply with the material requirements of BS4576: Part1 1989, BS EN 607: 1996, BS EN 1462: 1997, BS EN 12200 – 1: 2000.

FloPlast rainwater systems also use synthetic rubber seals within their gutter systems and galvanised steel for the manufacture of rise and fall and rafter brackets.

Note: It is important that site practice and health and safety procedures should be adhered to at all times.

#### WEIGHT

FloPlast rainwater systems are light weight and easy to handle.

#### PACKAGING

For ease of storage, handling and protection, FloPlast products are supplied in standard pack quantities (QTY) as detailed in the FloPlast brochure, packed and sealed in polythene sleeves or bags.

#### THERMAL MOVEMENT

- Tests have shown that expansion and contraction of gutter occurs during normal usage, and expansion tolerances are allowed for within fittings.
- Tests have been conducted between -8°C and +40°C where an expansion of 14.63mm was experienced over a 4metre length.
- There are obvious extremes, and under normal daily temperature fluctuations expansion and contraction will be in the region of 10mm per 4metre length.

#### DURABILITY

 Where the timber is treated with a copper/chrome/arsenic preservative, care must be taken to ensure sufficient time is allowed for drying to avoid corrosion of screws and nails used to fix the FloPlast components.

#### **ENVIRONMENTAL**

- Does not contain CFC gases.
- FloPlast cellular PVC-U products are recyclable.
- Composition/formulations are nonhazardous to health and/or the environment.

## PERFORMANCE

FloPlast products have the following performance characteristics:

#### STRUCTURAL/MECHANICAL

- Structurally suitable for their designed applications including:
  - Building Regulations (Approved Document H) requirements.
  - The requirements of the Building Regulations 2000 (2002) as set out in Approved document H part 3.
  - As an alternative to this requirement is to follow the relevant recommendations of BS EN 12056 3: 2000 Roof Drainage, Layout and Calculation.

Note: For non-standard applications please consult FloPlast.

- When installed in accordance with FloPlast installation instructions, the system will withstand, without damage or permanent deflection, the wind loads likely to be encountered in the United Kingdom.
- FloPlast rainwater systems have good flexural and tensile characteristics and they will withstand normal ladder weight, however reasonable care should be exercised when in extremely cold conditions.
- FloPlast systems have been tested to withstand snow loads in accordance with BS EN 1462: 1997.
- Consideration should be given in areas of high snow falls and were severe icing might be expected. It is recommended that snow boards be fitted to the eaves of the pitched roofs. This precaution should also be considered wherever sliding snow might cause damage or injury to person's or structures below (as recommended in BS EN 12056 – 3).

#### FIRE

 FloPlast gutters, pipes and fittings are manufactured in PVC-U, which is not easily ignitable and will not support combustion.

#### **GASES/LIQUIDS**

- PVC-U has good resistant properties to most solutions of acids, alkalis, salts and solvents miscible with water.
- PVC-U is resistant to aromatic and hydrocarbons.
- FloPlast incorporate high quality pigments within their products which afford outstanding durability and helps to prevent degradation by air pollution and U.V light.

Contact with bituminous liquids is not advisable.

# HEALTH AND SAFETY & COSHH GUIDANCE

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#### **GENERAL SITE SAFETY**

- All relevant requirements should be strictly adhered to and include:
  - Wearing of hard hats and appropriate footwear/clothing.
  - Ensuring safe working platforms, including guardrails, means of arresting falls and safe access to the working area.
  - Provision of first aid facilities and appropriate storage facilities for materials.
- FloPlast rainwater systems are easily cut routed and drilled using conventional woodworking tools.

Note: Products should always be cut with the correct tools-never broken.

- Observe all Health and Safety regulations regarding the use of hand and machine tools.
- Fine-toothed tungsten carbide tipped power tools may be used with FloPlast products at manufacturer's recommended speeds.
- Always wear a coarse particle dust mask and eye protection against airborne swarf when using power tools.

Note: PVC-U dust poses no special hazards other those generally associated with dust.

# BIOLOGICAL

#### Resistant to

- Bacterial growth
  - Fungal growth
  - Termite attack

Note: Products need protection from:

- rodents
- vermin

#### SITE SAFETY GUIDELINES

It is essential that all FloPlast products be installed in accordance with FloPlast Technical Literature.

#### TRANSPORT/HANDLING/STORAGE

- FloPlast PVC-U pipes And gutters are supplied in secure bales bound with straps within frames. FloPlast recommend that movement of bales is carried out by fork lift or other mechanical device using webbing or rope strings.
- The bales may be stacked up to a maximum of three high providing that the timber frames are placed on each other.
- When pipes or gutters are supplied in individual packs or when bales are opened it is advised that movements are performed by hand.
- Fittings are generally supplied in plastic bags and should be stored away from direct sunlight. If they have to be stored outside, the bags should be opened to prevent temperature build up and distortion to the products.
- Cold weather affects the impact strength of most plastics so extra care should be taken when handling gutter and pipes in wintry conditions.

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#### PUBLICATIONS/INDUSTRY STANDARDS

General health and safety guidelines for construction sites are set out in publications by various organisations, including:

- COSHH
- HSE
- CDM

The Construction (Health, Safety and Welfare) Regulations 1996 complement the CDM regulations to complete the UK's response to the EC's Temporary and Mobile Worksite Directive.

Relevant HSE publications include:

- HS (G) 150 Health and Safety in Construction ISBN 07176 1143
- Guidance Note EH37 Working with Asbestos

HSE publications available from HSE Books, PO Box 1999, Sudbury, Suffolk, CO10 6FS Tel: 01787 881165, Fax: 01787 313995

#### **TECHNICAL SERVICES**

FloPlast provide a comprehensive technical support service. For guidance on any health and safety issues, including any aspect of system design, specification or installation, please call the FloPlast Technical Helpline on 01795 431731

### **STANDARDS**

- BS EN ISO 9001: 2000 Quality Systems Licence No: FM501414
- BS EN 607: 2004 Eaves gutters and fittings.
- BS EN 1462: 2004 Brackets for eaves gutters
- BS EN 12200 1: 2000 Plastic rainwater piping systems for above ground external use (PVC-U).

## DISPOSAL

Off cuts can be disposed of safely by the following methods:

- In landfill sites, where they can act as a binding agent, imparting stability to the site.
- By incineration. Ensure the incinerator is equipped with modern technology and good management practice is applied.
- Off cuts should be removed from site and disposed of, PVC-U is not biodegradable

# FloPlast Ltd

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