Plastic plumbing - pipe support

(November 2024) (Second issue - supersedes December 2008)

The Technical Guidance Notes are produced by NHBC as guidance solely for our builder customers as to how to interpret the technical requirements in relation to the warranty cover provided by NHBC under its Buildmark, Buildmark Choice, Buildmark Link, Buildmark Solo, Buildmark Connect or any similar product from time to time. It has not been created or intended for distribution or use outside of that purpose. The information contained in this Technical Guidance Note does not constitute advice and is not to be relied upon by any third party. Nothing in this Technical Guidance Note is intended to, nor should it be taken to, create any legal or contractual relationship. Any third party who chooses to rely upon the information contained in the Technical Guidance Notes shall do so entirely at their own risk and NHBC accepts no duty of care or liability, however caused, in connection with its use or reliance by any third party.

Question

What are the recommended fixing centres for plastic pipes supplying hot and cold water and central heating services?

Considerations

- Recommended fixing centres for plastic pipes vary according to the diameter of the pipe.
- BS 5955 Part 8 'Specification for the installation of thermoplastic pipes and associated fittings for use in domestic hot and cold services and heating systems in buildings' states fixing centres for plastic pipes where true alignment is required for a neat appearance.
- Temperature increases can reduce the stiffness of the pipe and cause significant expansion and sagging (linear thermal movement of plastic is approximately ten times greater than copper). Fixings must secure and maintain adequate support to the pipe to avoid excessive sagging whilst allowing for thermal movement.
- Sagging of pipes is normally acceptable provided it does not cause them to come into contact with sharp objects, heat sources such as inset lighting, electrical wiring or cause hot and cold pipes to make contact.
- Advice from the Technical Committee of BS 5955 confirms concealed pipes spanning between joists (including timber engineered joists) at up to 600mm centres is acceptable.

Answer

Exposed flexible plastic pipework used for hot and cold water supplies and central heating should be installed at the fixing centres in the table below. Concealed plastic pipes may be supported at greater centres provided the sagging is not excessive. Pipes spanning between joists at up to 600mm centres are normally acceptable for concealed pipework.

Nominal Diameter (mm)	Horizontal runs (mm)	Vertical runs (mm)
10 to 16	300	500
18 to 25	500	800
28 to 32	800	1000



NHBC, NHBC House, Davy Avenue, Knowlhill, Milton Keynes, Bucks MK5 8FP Tel: 0344 633 1000 Web: nhbc.co.uk

National House-Building Council (NHBC) is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority for carrying on insurance business and insurance distribution activities.

NHBC is registered in England and Wales under company number 00320784. NHBC's registered address is NHBC House, Davy Avenue, Knowlhill, Milton Keynes, Buckinghamshire, MK5 8FP. Note that only certain parts of our products and services are within the scope of UK financial services regulations. For more information on our products and services, please see our website nhbc.co.uk or your NHBC product documentation.