

Specifications for plastic conduit systems

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Introduction

Plastic conduit systems have been in use in the UK for a number of years. There are various standards which can be applied depending on the application.

The purpose of this short guide is to provide information on the appropriate product standards for specific duct applications. This document will support contractors, installers and designers in selecting the right product for the specific application.

In preparing this document we note that BS EN 50626-1 has been published and will supersede BS EN 61386-24 at the end of its transition period – 21st July 2026.

The table also includes references to superseded standards which may be helpful in identifying selection of the current standard in each application.



Application	Typical application	Typical duct	Standard	Superseded Standard	Regulation
General Purpose	Non power related	Typically PVC/PE/PP single wall smooth Normally Black	None / manufacturer's agreed specification For particular requirements seek manufacturer's advice		None
Low Voltage - telecomms	Communication cables and sub-ducts Motorway communications	Typically PE twin wall and PVC/PP/PE smooth wall	BS EN 61386 Part 24 (Scope - For AC under 1000V or DC under 1500V) Colour per type of application - NJUG (Streetworks UK Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus) / Telecom Operator End-user – to specify standard Classification code (from BS EN 61386 Part 24) and impact strength (from BS EN 61386 Part 24) for type of application. For highways – BPF Pipes Group document <i>Specification for plastic drainage and service ducts in highways v2 January 2024</i> https://www.bpfpipesgroup.com/technical-information/specification-guidance/	BS EN 50086-2-4	None
Low voltage	Power cables	Typically PE twin wall and PVC/PP/PE smooth wall	BS EN 61386 Part 24 (Scope - For AC under 1000V or DC under 1500V) -See Footnote 1) for UKCA/ UKNI/CE marking Colour per type of application - NJUG (Streetworks UK Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus) For Energy Networks - ENATS 12-24- issue 4, 2021 Class 3	BS EN 50086-2-4	Low voltage directive 2014/35/Eu Scope AC 50-1000V or DC 75-1500V

High voltage	Power Cables	Typically PVC/PE Smooth Wall/PP/PE Twin wall Typically red/black	For Energy Networks – ENATS 12-24 – issue 4, 2021 Class 1 and Class 1+ – 450 N compression strength at 75 °C Class 2 – 450 N compression strength at 50 °C		
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Footnote 1) BS EN 61386-1: 2008+A1: 2019 was prepared under a Mandate relating to the low voltage directive and manufacturers can self-declare for UKCA/CE marking.

Footnote 2) We recognise the publication of BS EN 50626-2:2023. This standard differs from Part 1 as it is specifically related to solid wall conduit systems used in special applications where a leak tight system is required. Leak tight structured wall ducts manufactured in accordance with BS EN 50626-1: 2023 are available with various levels of ingress protection (IP Code) to BS EN 60529 (speak to manufacturer for specific requirements).

Footnote 3) Conduit systems in adoptable drains and sewers are outside the scope of this guide, further information can be found in the Design and Construction Guidance for foul and surface water sewers offered for adoption under the Code for adoption agreements for water and sewerage companies operating wholly or mainly in England ("the Code").

Footnote 4) Conduit systems for use in the water supply sector are outside the scope of this guide – individual water companies should be consulted.