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Section D – Media

Part 5: Marking of pipelines according to the flow medium

The following delivery specifications of Wieland-Werke AG form part of the contract.
Any deviating specifications are to be agreed upon between the supplier/contractor and Wieland, and documented.

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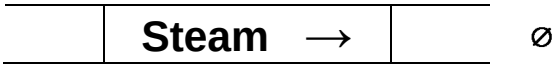
Existing pipework is not affected by these rules. The marking is applicable to newly installed pipes.

Flow medium in acc. with DIN 2403	**Text**	**Ulm and Vöhringen plants**	**Langenberg plant**	**Villingen plant**
		Colour on RAL colour chart RAL 840 HR		
Water	Drinking water, municipal water Service water Water/glycol Heating flow and return Condensate, demineralised water, pure water Machine wastewater Sewage (domestic wastewater) Rainwater and cooling wastewater Treated wastewater	Green 6032	Green 6032	6019 Green 6032
Steam	Steam	Red 3001	Red 3001	---
Compressed air	Compressed air, air in general	Grey 7004	Grey 7004	Grey 7004
Oxygen	Oxygen	Blue 5005	Blue 5005	Blue 5005
Flammable gases	Natural gas, butane, natural gas / air Butane/air Propane, hydrogen	Yellow 1003	Yellow 1003	Yellow 1003
Non-flammable gases	Nitrogen, protective gas	Yellow 1003	Yellow 1003	Base colour Yellow 1003 Sticker Black 9004

Flow medium in acc. with DIN 2403	**Text**	**Ulm and Vöhringen plants**	**Langenberg plant**	**Villingen plant**
		Colour on RAL colour chart RAL 840 HR		
Acids	Sulphuric acid, nitric acid Hot mixed acid Decopperised pickling solution Regenerated acid, spent acid Cold sulphuric acid Chromium solutions	Sticker Orange 2010	Sticker Orange 2010	Sticker Orange 2010
	Pre-rinse water, flow rinse water Rinse water containing chromium Acidic rinse water (bottom rinse water)	Green 6032	Green 6032	Green 6032
Alkalis	Sodium hydroxide solution, sodium nitrite Sodium bisulphite Degreasing solution	Sticker Violet 4008	Sticker Violet 4008	Sticker Violet 4008
Flammable liquids	Hydraulic oil, hardening oil, lubricating oil Heating oil EL, fuel, waste oil	Brown 8002	Brown 8002	Brown 8002
Non-flammable liquids	Emulsions, hydrogen peroxide	Brown 8002	Brown 8002	Brown 8002

Pipes are to be painted in group colours along their entire length and marked with colour marking rings approx. every 20 m and at operationally important points e.g. beginning, end, branches, wall feed-throughs, fittings, and labelled with information about the flow direction and substance designation.
Pipes on which is impracticable to apply a continuous coat of paint (e.g. insulated pipes, plastic, copper and stainless steel pipes) must be marked with colour marking rings at intervals of max. 10 m.

Implementation: Colour marking rings in group colour, with direction arrow and substance designation in acc. with column 2 in the table above, glued on with sufficient overlap.



Identification plates

Identification plates shall be affixed to pipelines at all manifolds, supply and delivery points as well as at other operationally important points, in such a way that they are easily legible. Company names (advertising) on the plates is not permitted.

Normal design:
- Plate white plastic, black lettering
- Text 1 to 3 lines, up to 22 characters per line, lettering height 6 mm

Fastening:
- Universal holder with nickel-plated clamping band
- Weld-on holder with welding pin 100 mm long
- Screw-on holder with welded-on nut M8 and two additional screw holes Ø 4,2 mm

Cover:
- Transparent plastic

For safety reasons, the following deviations apply to media delivered or collected by vehicle:

Acidic media:	- Plate orange	RAL 2010, lettering white
Alkaline media:	- Plate violet	RAL 4008, lettering white
Oil, emulsion:	- Plate brown	RAL 8002, lettering white

Normative reference

Unless specific otherwise, DIN 2403 is to be applied.