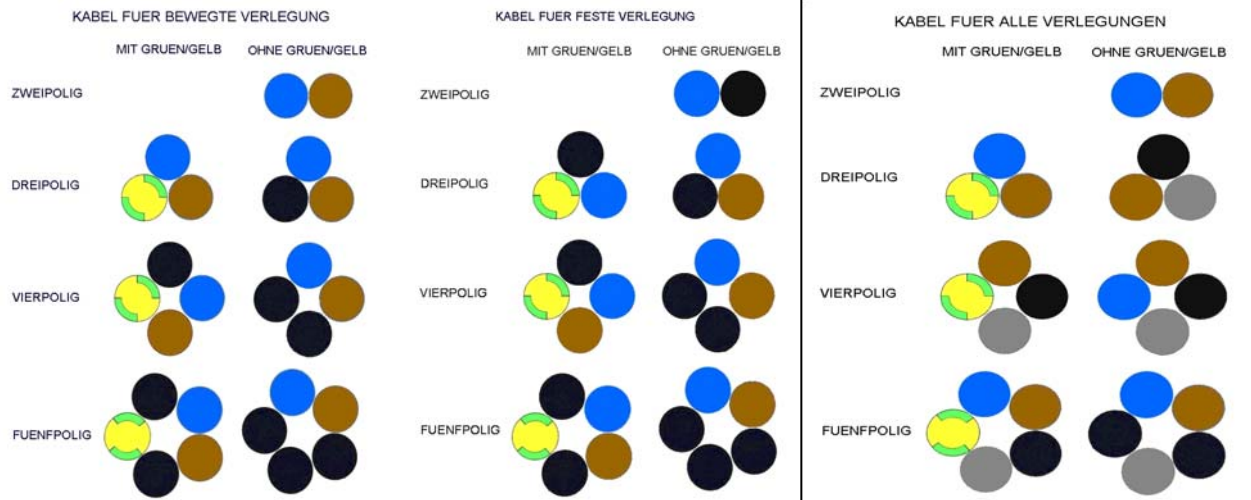# Colour-Coding for Cables and Wires

Old schema off colour-coding acc. harmonized document HD 308 S1	**New schema of colour-coding acc. harmonized document HD 308 S2 valid from 1.4.2006**

From six core: - J - Construction: 1 green-yellow core, further cores back with embossed numbering
                         - O – construction: All cores back with embossed numbering

Exceptions: a) 4-core with green-yellow alternative only for particular applications: Green-yellow, blue, brown, black
                        a) 3-core without green-yellow alternative only for particular applications: Blue, brown, black

What are the principal enhancements of the new system?

The principal enhancement is the introduction of the "grey" core colour for an outer conductor. The colours and the colour sequences in the cable are shown in the tables above. **The arrangement of the core colours for earth conductors and neutral lines is unchanged, that is: green-yellow and blue.**

DIN VDE 0293-308 (VDE 0293 part 308): 2003-01 provides for 2 exceptions whereby these variants, marked with the footnote "a)" or "b)", are applicable only for particular applications. These special applications are defined in DIN EN 60446 (VDE 0198): 1999-10, section 3.2.2. Accordingly for particular applications where there is no danger of confusion and no neutral line existing in the system, the blue core can be used as external conductor. However, no colour other than blue may be used for the neutral line. The colour light-blue is generally replaced by blue in this colour system.

Transitional period between old and new system with identification of cable cores and wires through colours

In general, standards cover comparable products. By referring to product standards in contracts it is possible to dispense with a considerable proportion of specification details.   However there are exceptions, namely in the case of transitional periods with revised standards or "replacement standards" contingent on harmonisation. In this case the old and the new definitions are equally valid during the agreed transitional period. This applies also for the core identification of cables and wires. By harmonising the core colours of cables and wires through the installation technology standards committees, the wiring industry was granted the time period of 01.10.2001 to 01.04.2006, to change over its product range to the new core colours and to dispose of their existing stock with the old identification.

During the transitional period users of the cable and wiring, and the dealers, have the opportunity to complete projects that they have already started with the previously used products and reduce old stocks correspondingly. The electrical trade have indicated that from their side there should be no difficulties in effecting the changeover. The cable manufacturers intend to carry out the changeover as quickly as possible, but due to the various different operational conditions it is not possible to nominate a harmonised changeover date. The rough target for this is the end of 2003 so that from 01.01.2004 the proportion of products on the market with the new core identification system will increase sharply.

Core colour-coding of PVC control lines with 6 or more coloured cores

(In accordance with DIN VDE 293)

Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour
0	yellow-green	17	pink - white	34	orange-blue	51	transp. red	68	transp. white-black	85	beige-white-brown
1	white	18	orange-white	35	transp.-blue	52	beige-red	69	beige-white-black	86	red-white-grey
2	black	19	transp.-white	36	beige-blue	53	pink-violet	70	brown-white-blue	87	violet-white-grey
3	blue	20	beige-white	37	grey-brown	54	orange-violet	71	brown-white-blue	88	pink-white-grey
4	brown	21	blue-black	38	red-brown	55	transp.-violet	72	grey-white-blue	89	orange-white-grey
5	grey	22	brown-black	39	violet-brown	56	beige-violet	73	red-white-blue	90	transp-white-grey
6	red	23	grey-black	40	pink-brown	57	transp.-pink	74	violet-white-blue	91	beige-white-grey
7	violet	24	red-black	41	orange-brown	58	beige-pink	75	pink-white-blue	92	blue-white-red
8	pink	25	violet-black	42	transp.-brown	59	transp.-orange	76	orange-white-blue	93	brown-white-red
9	orange	26	pink-black	43	beige-brown	60	beige-orange	77	transp-white-blue	94	violet-white-red
10	transparent	27	orange-black	44	red-grey	61	blue-white-black	78	beige-white-blue	95	pink-white-red
11	beige	28	transp.-black	45	violet-grey	62	brown-white-black	79	grey-white-brown	96	orange-white-red
12	black-white	29	beige-black	46	pink-grey	63	grey-white-black	80	red-white-brown	97	brown-white-violet
13	brown-white	30	brown-blue	47	orange-grey	64	red-white-black	81	violet-white-brown	98	orange-white-violet
14	grey-white	31	grey-blue	48	transp.-grey	65	violet-white-black	82	pink-white-brown	99	brown-black-blue
15	red-white	32	red-blue	49	beige-grey	66	pink-white-black	83	orange-white-brown	100	grey-black-blue
16	violet-white	33	pink-blue	50	orange-red	67	orange-white-black	84	transp-white-brown	101	red-black-blue

Example core colours :

YSLY-JB 12 x 1.5: yellow/green, white, black, blue, brown, grey, red, violet, pink, orange, transparent, beige
YSLY-OB 12 x 1.5: white, black, blue, brown, grey, red, violet, pink, orange, transparent, beige, black/white