

**Commentary to the Use of Luminescent Colors for Stay Cable Pipes**

We regret to inform, that after more than 5 years of research in developing a uv-stabilization of luminescent / fluorescent colors like RAL 1026, 2005, 2007, 3024, 3026, PESTEC can not offer these colors with similar durability to all our other colors for HDPE products used exposed.

Technical explanation

Color pigments are rated in

- light fastness (resistance to fading) according a so called blue scale for rating 1-8
- fastness to weathering according so called grey scale rating 1-5

The above mentioned colors have a light fastness rating 3 and weathering fastness rating 1. These values are so bad, that even with our excellent uv-stabilization formula without a basic resistance it is impossible to uv-stabilize for the use in stay cables.

Just for a comparison, the worst color we used for a project in the past (RAL 2009) has lightfastness rating 5 and weathering fastness rating 3. We never produced a luminous color for stay cables before.



For verification we suggest you a simple test, by exposing a marker during summer temperatures outside for 1 month. You may see starting color fading already after 1 week.

Conclusion

- For indoor use, we have achieved quite acceptable results for 10-15 years, but for exposed applications like stay cables, the durability will not reach more than 2 years.
- Pipes are expected for sure to fade unequally
- Pipes are expected to get cracks, which will influence the intended corrosion protection properties
- Considering our clients and project owners expectations, these 2 years are insufficient to comply with today's expected minimum color durability of 50 years, which we can achieve with all our other colors.

Option recommendation

We recommend to choose a nice and durable color by considering our technical information TI 110-29 Color recommendations for stay cables.

Please find our special recommendation for options of the following luminescent colors:

For RAL 1026 – Option RAL 1016

For RAL 2007 – Option RAL 1028, 2008

For RAL 2005 , 3024, 3026 – no good proposal possible

The luminous colors after 1 year will look like the proposed options, but worse already after 2 years.

Remark

If a project owner insists in using a luminous color for his exposed stay cable project, we cannot offer any guarantee and in addition request a written owner statement, that he has been informed this technical information, takes the mentioned risks on his own and keep PESTEC out of any claims

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