



**THERMOPLASTIC ROAD MARKING PAINTS
EN 1871:2000**

TECHNICAL DATA SHEET (TDS)

WHITE & YELLOW

General

This specification / requirements is covering the purchase of reflective thermoplastic paint for road marking for white and yellow color lines and horizontal traffic signs.

Material

The materials shall comply with the EN 1871:2000 standard – Road marking materials physical properties.

Technical Characteristics

Characteristic, EN 1871:	Relative Paragraph of	White	Yellow
Chromatic coordinates - 4.2.1.1		Table 2-White	Table 2-Yellow
Class of luminance Factor β , 4.2.2.1 -Table 5		LF4($\beta \geq 0,70$)	LF1($\beta \geq 0,40$)
Softening Point,4.2.1.2 - Table 6		SP3($\geq 95^\circ\text{C}$)	SP3($\geq 95^\circ\text{C}$)
Cold Impact,4.2.1.4 - Table 7		CI2	CI2
UV Aging,4.2.1.5-Luminance Factor-Table 3		UV1($\Delta\beta \leq 0,05$)	UV1($\Delta\beta \leq 0,05$)
UV Aging,4.2.1.5-Chromaticity Coordinates-Table 2		Table 2-White	Table 2-Yellow
Heat Stability,4.2.3.1- Chromaticity Coordinates - Table 2		Table 2-White	Table 2-Yellow
Heat Stability,4.2.3.2 - Softening Point		$\Delta\text{SP} \leq \pm 10^\circ\text{C}$	$\Delta\text{SP} \leq \pm 10^\circ\text{C}$
Weather Resistant,4.2.2.4 - Table 9		TW2(2,5 – 5,0)	TW2(2,5 – 5,0)
Weather Resistant(after UV aging) 4.2.3.6 - Table 10		TWU1(0 to 0.5)	TWU1(0 to 0.5)

Additional to the above requirements the offered thermoplastic paint shall appear the below properties / performance, in use that are designated in EN 1436:2007 +A1 Road Marking Materials – Road Marking Performance for road Users:

Characteristic, Relative Paragraph of EN 1436:	White	Yellow
Luminance coefficient under diffuse illumination in dry conditions 4.2.2 Table 1	Q3 (Qd≥130)	Q2(Qd≥100)
Retroreflection under vehicle headlamp illumination, Dry road Markings, 4.3, Table 3	R4(R _L ≥200)	R3(R _L ≥150)
Chromatic coordinates, 4.4, Table 6.	Table 6-White	Table 6-Yellow class Y1
Skid Resistance.4.5, Table 7	S2(SRT≥45)	S2(SRT≥45)

Composition of the thermoplastic paint

The pigment, the glass bead the filler shall be uniformly spread in the resin and complies to the below Table:-

Composition of the thermoplastic paint % per mass			
Component	White	Yellow	Red
Binder	18.0 min	18.0 min	18.0 min
Glass Beads – According the EN 1424:1997/A1:2003	30-40	30-40	30-40
Calcium Carbonate and inert Fillers	42 max	42 max	42 max
Titanium Dioxide – According to ASTM D476 Type II(Rutile)	10.0 min	-----	-----

The granular of the glass beads that are spread in the thermoplastic paints shall be as per below Table:

Sieves ISO 565:1990 R 40/3 - µm	Cumulative retained mass (%)
710	0-2
600	0-10
355	30-70
212	70-100
125	95-100

The maximum acceptable of faulty glass beads shall be 20% per weight.

The reflective coefficient shall be above 1.5.