



GSE HD Color - Product Data Sheet

(RAL 6005* – moss green)

GSE HD Color is a smooth, high quality, high density polyethylene (HDPE) geomembrane that consists of two layers. It has an UV-stabilized, colored upper layer** that is approximately 0.075 – 0.125 mm thick, being an integral part of the geomembrane. This layer is part of the total thickness, the remainder of which is a carbon black stabilized primary layer. The polyethylene resin is designed specifically for durable geomembrane applications. GSE HD Color has excellent mechanical properties, environmental stress crack resistance, dimensional stability and thermal aging characteristics. GSE HD Color is providing exposed lining-systems, which are well integrated into the environment. Other colors (RAL-based) are available upon request. The UV-resistance as well as the color stability is variable in time dependent on the selected color.

Tested Property	Unit	Test Method	Values (**)		
Thickness (a)	mm	DIN EN ISO 9863-1	1.0	1.5	2.0
Density	g/cm ³	DIN EN ISO 1183-1/A	≥ 0.94	≥ 0.94	≥ 0.94
Tensile Properties (each Direction)		DIN EN ISO 527-3 (Type 5; 100 mm/min; lo = 50 mm)			
Stress at Yield	MPa		17 (16)	17 (16)	17 (16)
Elongation at Yield	%		10 (9)	11 (10)	11 (10)
Stress at Break	MPa		35 (26)	35 (26)	35 (26)
Elongation at Break	%		800 (700)	800 (700)	800 (700)
Tear Resistance	N	DIN ISO 34-1/B(a)	145 (130)	225 (210)	300 (280)
Puncture Resistance	N	DIN EN ISO 12236	2,850 (2,400)	4,150 (3,700)	5,450 (4,900)
Dimensional Stability (each Direction)	%	DIN 53377 (120 °C/1h)	± 2	± 2	± 2
Melt Flow Index (b)	g/10 min	DIN EN ISO 1133 (190 °C / 5.0 kg) (190 °C / 2.16 kg)	≤ 3.0 ≤ 1.0	≤ 3.0 ≤ 1.0	≤ 3.0 ≤ 1.0
Stress Crack Resistance (NCTL)	h	ASTM D 5397; Appendix	≥ 400	≥ 400	≥ 400
Oxidative Induction Time (OIT)	min	ASTM D 3895 (200°C; Pure O ₂ ; 1 atm)	≥ 100	≥ 100	≥ 100
Reference Property	Unit	Test Method	Values (**)		
Low Temperature Brittleness	°C	ASTM D 746	- 77	- 77	- 77
Carbon Black Content (c) (black Layer)	%	ASTM D 1603	2.0 – 3.0	2.0 – 3.0	2.0 – 3.0
Carbon Black Dispersion (black Layer)	Cat.	ASTM D 5596	1 / 2 (d)	1 / 2 (d)	1 / 2 (d)
Roll Width (approx.) (e)	m	---	6.95		
Surface	---	---	double-sided smooth		

* RAL – System defining color shades, giving them definitive numbers and names.

** Due to the production process the brightness of the colored layer may vary.

*** All values – unless otherwise noted – are nominal values. Values in brackets are minimum values within the 95% confidence interval.

(a): Tolerance ± 10%.

(b): Standard test conditions: 190 °C / 5.0 kg.

(c): GSE HD Color may have an overall ash content greater than 3% due to the coloured layer.

(d): Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.

(e): Roll widths and lengths have a tolerance of ± 1%.

GSE HD Color is produced at GSE Rechlin plant, Germany.



This information is provided for reference purposes only and is not intended as a warranty or guarantee. GSE assumes no liability in connection with the use of this information. Please check with GSE for current, standard minimum quality assurance procedures. This information is subject to change without prior notice. Please contact GSE for updated information.

1213-CPD-3879

Europe, CIS & Africa Headquarters
GSE Lining Technology GmbH
 Normannenweg 28
 20537 Hamburg
 Germany
 Tel.: +49 40 76742-0
 Fax: +49 40 76742-34
 e-mail: europe@gseworld.de

Corporate Headquarters
GSE Lining Technology, Inc.
 19103 Gundle Road
 Houston, Texas 77073
 USA
 Tel: +1 281 443-8564
 Fax: +1 281 875-6010

Other Production facilities & Sales Offices
 United Kingdom
 Russia
 Turkey
 Australia
 Thailand
 Egypt
 Chile



09-07-17-HDB-Color-6005-10/20-ISO-E

Visit us at www.gseworld.com
 A Gundle/SLT Environmental, Inc. Company