

TAM PETROLATUM TAPE

Factory :

PT. TAM VICTORY CEMERLANG

Kawasan Bekasi Fajar Industrial Estate MM 2100
Jl. Flores III Blok C3 No. 5, Cibitung - Bekasi

Distributor :

PT. RANADITYO SUKSES MAKMUR

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INTRODUKSI

- ▶ TAM Petrolatum Tape adalah produk buatan dalam negeri dan mempunyai nilai **TKDN** sebesar **56.01%**.
- ▶ Angka ini didapat dari Kementerian Perindustrian dengan nomor sertifikat: 1440/SJ-IND.8/TKDN/11/2020

TAM Petrolatum Tape dibuat **sesuai dengan standar** :

- NACE SP 0375-2018 : “Field applied underground wax coating systems for underground metallic pipes”
- NACE SP 0108-2008 : “Corrosion control of Offshore structures by Protective coatings”



Sertifikat TKDN



P3DN

DAFTAR INVENTARISASI
BARANG/JASA PRODUKSI
DALAM NEGERI

PENINGKATAN PENGGUNAAN PRODUK DALAM NEGERI

HOME

SERTIFIKAT

REKAPITULASI

FAQ

REGULASI

VIDEO

Detail Sertifikat TKDN

Perusahaan

PT. TAM VICTORY CEMERLANG

No. Sertifikat

1440/SJ-IND.8/TKDN/11/2020

Tanggal

23 Nopember 2020

Hasil Produksi

Industri Lak

Kode HS

56064000

No Referensi

TKDN - 20 - 17118

Verifikator

PT. Surveyor Indonesia

Jenis Produk : **Petrolatum Tape**

Merk dan Tipe : **TAM TAM PETROLATUM TAPE**

Spesifikasi : **Anti Corrosion Multi Purpose Petrolatum Anti Corrosive Tape**

Standard :

Nilai TKDN : **56.01%**

LOKASI PABRIK

PT TAM VICTORY CEMERLANG berlokasi di :

Kawasan Bekasi Fajar Industrial Estate MM 2100
Jl Flores III C3 No. 5, Cibitung, Indonesia

Berdiri sejak tahun 1991 oleh senior chemist alumni ITB dengan pengalaman pada perusahaan **PROTECTIVE COATING** multi national company selama lebih dari 40 tahun.

Kami menyambut dengan senang hati kedatangan Bapak/Ibu sekalian untuk melihat produksi produk-produk anak bangsa Indonesia.



KEUNGGULAN

- ▶ Produk Petrolatum tape pertama di Indonesia disupply oleh denso UK tahun 1980an
- ▶ Kemudian oleh PT TAM Victory Cemerlang dikembangkan menjadi TAM Petrolatum Tape dengan life time design system 20 tahun dengan garansi 1 tahun, yaitu :
 1. Tidak ada penetrasi air di celah-celah girder dengan cara, sealing system pada girder dengan menggunakan underwater epoxy mastic.
 2. Cela pada bagian bawah ditutup dengan menggunakan underwater cured epoxy.
 3. Menyatukan HDPE dengan petrolatum tape dengan cara menggunakan hydraulic jack untuk menarik HDPE sheet dengan elongation 5%.
 4. TAM Petrolatum Tape mempunyai spesifikasi:
 - Salt spray 960 hours = no corrosion
 - Dielectric strength 202.8 Volt/mil



PERHITUNGAN GAP HDPE

Dia (inch)	Dia (m)	Keliling (m)	Elongation - %	GAP (cm)	BAUT SS 316	
					TYPE	LENGTH (cm)
24,0	0,609	1,91	5	10	M10	10
28,0	0,711	2,23	5	11	M10	10
32,0	0,812	2,55	5	12	M10	10

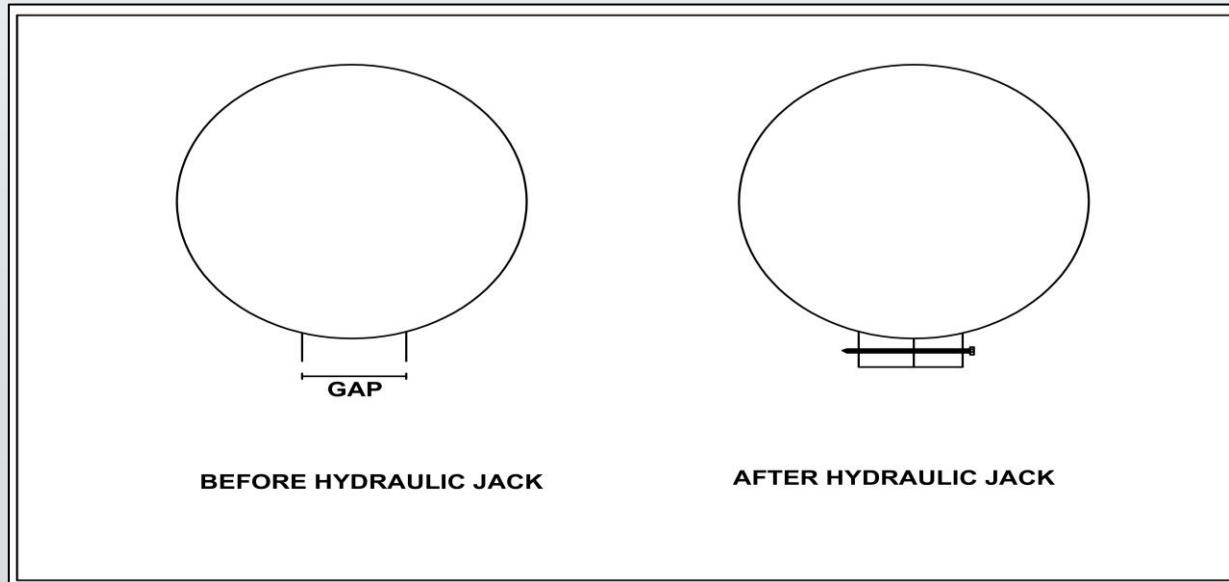


FOTO MESIN MIXER



FOTO MESIN SATURATION FABRIC



FOTO LABORATORIUM



QA/QC

Number	Description	Standard	Acceptance Criteria	Equipment
1	Surface standard	SSPCSP2/SP3 (Hand tool / Power tool)	Similar to ISO 8501 Picture- SSPC SP2 & SP3	ISO 8501 Standard Book
2	Visual paste to structure	Manufacture Standard	100% coverage	Visual
3	Petrolatum tape	Manufacture Standard	No bubbling	Visual
4	Overlap tape	Owner Specification	Minimum 10%	Roll Meter
5	Nut bolt SS 316	Material Certificate	No magnetic	Magnetic Test

APA ITU TAM PETROLATUM TAPE?

- ▶ **TAM Petrolatum Tape** adalah fiber sintetis yang dilapisi dan dijenuhkan oleh campuran wax petrolatum
- ▶ Komponen campuran wax ini adalah:
 1. Plasticizer
 2. Filler
 3. Inhibitor
 4. Aditif
- ▶ Produk multi-komponen ini fleksibel dan dapat memberikan stabilitas anti korosi yang baik
- ▶ Petrolatum tape dapat digunakan untuk mencegah terjadinya korosi pada pipa dan tiang pancang di atas air dan di bawah air. Produk ini digunakan dengan cara membungkus lapisan pipa/tiang yang ingin dilindungi



**SYARAT WAJIB DARI NACE STANDARD SP0375, TABEL 4 SPESIFIKASI WAX
(PETROLATUM) BASED TAPE**

Sifat Petrolatum Tape	Persyaratan Fisik	Metode Uji	Hasil Uji TAM	Remarks	Laboratory
Congeal point of saturant	Min 63° Celcius	TAM In house Lab	65° Celcius	Passed	TAM In house Lab
Flash point of saturant	Min 60° Celcius	ASTM D 92	224° Celcius	Passed	Sucofindo Lab No. 13155/DBBPAN
Thickness	Min 1000 microns	ASTM D 1000	1370 microns	Passed	STP Lab No.1580779084
Dielectric strength	Min 170 Volt/mill	ASTM D 149	202.8 Volt/mill	Passed	STP Lab No.1580955472

Kualitas TAM Petrolatum Tape sudah memenuhi Syarat Wajib NACE Standard SP0375 melalui metode pengujian sesuai dengan standard ASTM yang dilakukan pada third party lab Sucofindo dan STP

STP Lab : Sentra Teknologi Polimer – BPPT
Kawasan Puspitek – Tangerang Selatan



UJI TAMBAHAN SIFAT UNTUK TAM PETROLATUM TAPE

Sifat Petrolatum Tape	Metode Uji	Hasil Uji TAM	Laboratory
Breaking strength	ASTM D 4595	15220 N/m	STP Lab No.1580779084
Elongation at break	ASTM D 4595	15.63 %	STP Lab No.1580779084
Dropping point	ASTM D 566	155° Celcius	Sucofindo Lab No. 13155/DBBPAN
Petrolatum Tape	Sesuai dengan Data Sheet Petrolatum Tape	80%	TAM Inhouse Lab

STP Lab : Sentra Teknologi Polimer – BPPT
 Kawasan Puspitek – Tangerang Selatan



UJI TAMBAHAN SIFAT UNTUK TAM PETROLATUM TAPE DI OFFSHORE

Sifat Petrolatum Tape	Metode Uji	Hasil Uji TAM		Laboratory
Salt spray @ 960 hours	ASTM B.117	Corrosion	None (rating 10)	B4T Lab No. 4-09-20-00538
		Blister	None	
	TAM In house Lab	Other Change	None	
		NO CORROSION PRESENT		TAM In house Lab

B4T Bandung: Balai Besar Bahan dan Barang Teknik
 Jl. Sangkuriang no. 14, Bandung



TAM PRIMER PASTE

- ▶ TAM Primer paste adalah pasta petroleum jenuh berwarna coklat yang mengandung inhibitor korosi dan inert barrier. Produk ini tidak mengering, mengeras atau retak.
- ▶ TAM Primer Paste dapat digunakan untuk mematikan karat yang sudah ada dengan rust converter (kill rust), menghilangkan kelembaban, membasahi permukaan, dan memastikan wax based tape dapat melekat.
- ▶ TAM Primer Paste ini dapat diaplikasikan di atas air dan bawah air



**SYARAT WAJIB DARI NACE STANDARD SP0375, TABEL 4 SPESIFIKASI
TAM PRIMER PASTE**

Properties of tape	Physical requirements	Test Method	TAM Test Result	Remarks
Flash Point	Min 66° Celcius	TAM In House Lab	180° Celcius	Passed
Congeal Point	Min 57° Celcius	TAM In House Lab	65° Celsius	Passed
Specific Gravity at 25 °C	0.88-1.25	TAM In House Lab	1.08	Passed

APLIKASI **TAM PETROLATUM TAPE**

APLIKASI TAM PETROLATUM TAPE DI LAPANGAN

1. Splash zone area
2. Underground piping system
3. Above ground piping system
4. Underwater pipe system

➡ Splash zone protection area untuk platform and jetty secara komersial pada umumnya disebut :

1. HDPE Jacket system
2. Splash guard system
3. Denso tape



BERDASARKAN NACE SP 0108-2008, "Corrosion control of Offshore structures by Protective coatings", point 4.4.3 :

- ▶ Typical maintenance splash zone coating systems.
 1. The physical accessibility in the splash zone is limited
 2. Access window is limited due to low tide
 3. The surface is damp from mist and high humidity
- ▶ Due to these difficulties, some relatively thick repair materials which are not liquid coatings, have been used

Standar di atas digunakan untuk aplikasi petrolatum tape di **splash zone area**



Berdasarkan NACE SP 0108-2008, “Corrosion control of Offshore structures by Protective coatings”, table 3 B :

- ▶ For wet pipes, the underwater curable epoxy should be brushed, petrolatum tape of 1.1 mm minimum thickness may be used.
- ▶ Additional outer layer jacket as a mechanical protection is needed.

Standar di atas digunakan untuk aplikasi petrolatum tape di **underwater pipe system**



Berdasarkan NACE SP 0375, "Field applied underground wax coating systems for underground metallic pipes", point 4.1:

- Petrolatum tape coating systems for underground pipes shall be consist of:
 1. Primer, consist of petroleum wax and plasticizers
 2. Wax tape coating, composed of synthetic fiber saturated with petroleum wax bend
 3. Outer wrap with suitable material such as plastic film, glass mesh or synthetic fiber mat

Standar ini digunakan untuk aplikasi petrolatum tape di **flange and piping system**



Berdasarkan NACE SP 0375, "Field applied underground wax coating systems for underground metallic pipes", point 4.2.3:

- An outer wrap that consists of suitable materials such as :
 1. Plastic film
 2. Glass fiber mesh
 3. Synthetic fiber mat
- May be used for additional mechanical protection
- Point 4.3 : minimum surface preparation: loose rust, mill scale, loose old coatings and dirt should be removed by hand tool cleaning in accordance with SSPC/SP2 minimum standard. While the wet surfaces shall be wiped until it's as dry as possible

Standar ini digunakan untuk aplikasi petrolatum tape di **underground or above ground piping system**



METODE APLIKASI TAM PETROLATUM TAPE

METODE APLIKASI

1. Persiapan permukaan: Permukaan dibersihkan terlebihkan dahulu dari sisa kerak, korosi atau material dengan standard SSPC-SP2/3 (Hand Tools / Power Tools)
2. Aplikasi Pasta: Pasta diolesi di permukaan dengan roll atau alat bantu lainnya
3. Aplikasi Petrolatum Tape: Petrolatum Tape melapisi sekeliling permukaan dengan pola spiral secepatnya setelah diberikan pasta dengan overlapping 30% atau owner spesification
4. Aplikasi Akhir: HPDE melapisi permukaan sebagai lapisan terluar sebagai perlindungan mekanis



TIPE HDPE

- ▶ **HDPE dengan Strapping Band**
- ▶ **HDPE dengan Girder**

Perbedaan antara keduanya adalah mekanisme sambungan yang digunakan untuk mengencangkan HDPE yang telah dibungkus





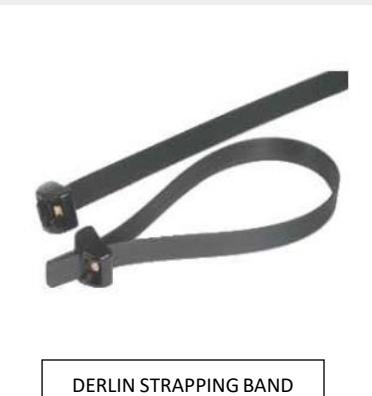
TAM PASTE
INDONESIA



TAM
PETROLATUM TAPE
Indonesia



HPDE SHEET
Malaysia/Canada



DERLIN STRAPPING BAND
and lock
USA



S/S 316 MUR/BAUT
INDONESIA

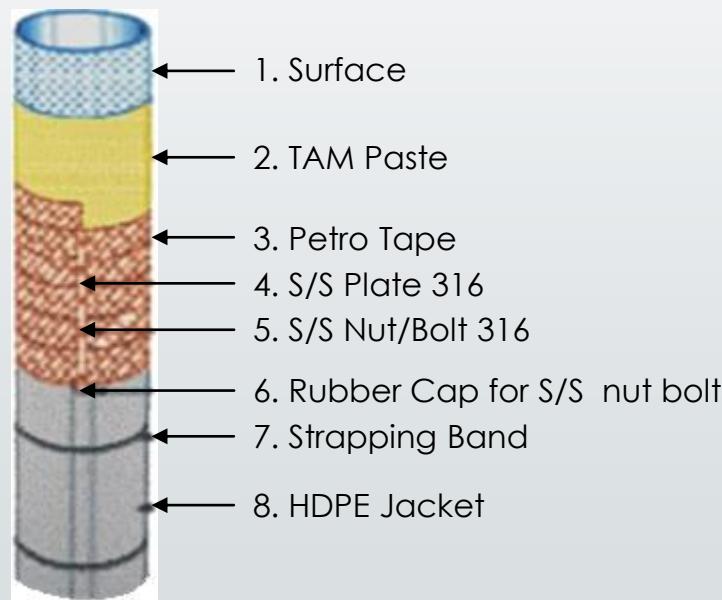


FRP ENCLOSURE
INDONESIA

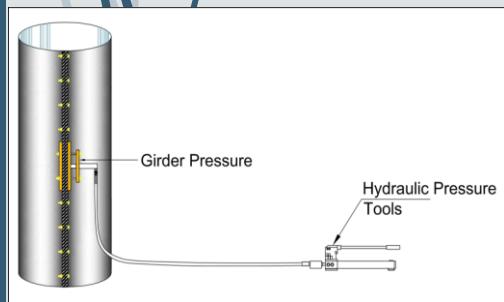


HDPE DENGAN STRAPPING BAND

- ▶ HDPE Jacket melapisi lapisan luar sebagai perlindungan kerusakan mekanikal
- ▶ HDPE dikencangkan dengan S / S Nut Bolt dan Strapping Band
- ▶ S / S Nut Bolt akan ditutup dengan tutup karet



HDPE dengan Girder



- ▶ Setelah surface preparation dan aplikasi paste dan petrolatum tape selesai. Assembly HDPE jacket dengan girder di atas air
- ▶ Sambungkan kedua ujung HDPE sheet dengan HDPE Girder menggunakan lem dan paku
- ▶ Assembly HDPE sheet dengan HDPE girder pada tiang pancang. Pasangkan dua baut di posisi atas dan bawah agar posisi HDPE Jacket "firm" pada tiang
- ▶ Pasangkan alat penjepit hydraulic jack pada HDPE Girder dan berikan tekanan ke pompa tangan hidrolik sampai rapat dan elongation HDPE Sheet minimum 5% tercapai.

Diameter (mm)	Hydraulic Jack Pressure (PSI)
609	15 - 25
711	20 -30
812	25 - 35

- ▶ Pasang Baut SS 316 pada lubang HDPE Girder dan kencangkan menggunakan kunci pas
- ▶ Tutup semua celah pada HDPE Girder dan HDPE Sheet bagian bawah dengan underwater cured epoxy



APLIKASI SPLASH ZONE



1. Persiapan Permukaan



2. Aplikasi Pasta



3. Aplikasi Petrolatum Tape



4. Aplikasi HDPE

Aplikasi Petrolatum Tape di Jetty RU V
Balikpapan Pertamina



Daftar Referensi

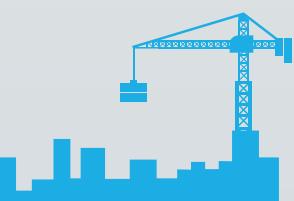
2012	PT. Dua Pilar	Proyek Dermaga Tanjung Mocoh - Tanjung Pinang, Riau	Supply and Installation Wrapping System For Splash Zone
2012	PT. Bumi Persada Nusantara	Proyek Dermaga Ternate - Maluku Utara	Supply and Installation Wrapping System For Splash Zone
2012	PT. Karya Anugerah Inma	Proyek Dermaga Siwa - Makassar	Supply and Installation Wrapping System For Splash Zone
2013	PT. Mitra Mandala Jaya	Proyek Dermaga Tanah Grogot - Kalimantan Timur	Supply and Installation Wrapping System For Splash Zone
2013	PT. Mitra Mandala Jaya	Proyek Dermaga Pasang Kayu - Sulawesi Barat	Supply and Installation Wrapping System For Splash Zone
2013	PT. Cemerlang Samudera Kotrindo	Proyek Dermaga Pasang - Sulawesi Barat	Supply Material Wrapping System For Splash Zone
2013	PT. Mitra Mandala Jaya	Proyek Dermaga KED - Kukar Samarinda	Supply and Installation Wrapping System For Splash Zone
2013	PT. Waskita - Siwa Prestasi	Proyek Dermaga Pantoloan - Palo	Supply and Installation Wrapping System For Splash Zone
2013	PT. Dua Pilar	Proyek Dermaga Malarko - Riau	Supply and Installation Wrapping System For Splash Zone
2013	PT. Karya Anugerah Inma	Proyek Dermaga Makasar - Sulawesi Selatan	Supply and Installation Wrapping System For Splash Zone
2013	PT. Pasific Solusi	Proyek Dermaga Serasan - Natuna	Supply and Installation Wrapping System For Splash Zone
2013	PT. Siwa Prestasi Gemilan	Proyek Dermaga Anggrek - Gorontalo	Supply and Installation Wrapping System For Splash Zone
2013	PT. Dewa Ruci Mulia	Proyek Dermaga Tj. Mocoh - Tj. Pinang	Supply and Installation Wrapping System For Splash Zone
2013	PT. Dharma Perdana Muda	Proyek Dermaga Pamekasan - Madura	Supply and Installation Wrapping System For Splash Zone
2014	PT. Pharmakasih Sentosa	Proyek Waisai	Supply and Installation Wrapping System For Splash Zone
2014	Bukit Asam	Proyek Dermaga Bukit Asam - Pelabuhan Tarahan	Supply and Installation Wrapping System For Splash Zone
2015	Merak - Banten	PLTU Suralaya	Supply and Installation Wrapping System For Splash Zone
2015	PT. Bumi Indo Graha	Perhubungan Laut - Dermaga Biak, Papua	Supply and Installation Wrapping System For Splash Zone
2015	PT. Pharma Kasih	Perhubungan Laut - Dermaga Bitung	Supply and Installation Wrapping System For Splash Zone
2015	PT. Pharma Kasih	Perhubungan Laut - Dermaga Maloy	Supply and Installation Wrapping System For Splash Zone
2015	PT. Citra Persada Bangun Persada	Perhubungan Laut - Dermaga Misol	Supply and Installation Wrapping System For Splash Zone
2015	Adhi Karya	Jetty PUSRI	Supply and Installation Wrapping System For Splash Zone
2015	PT. Krakatau Engineering	Open Access Tahap-1 RU II - Dumai	Material supply
2016	JOB Pertamina - Medco E&P	Proyek Senoro	Supply and Installation HDPE JACKET
2016	PT. Abdi Jati	Proyek PT Badak NGL, Bontang - Kalimantan Timur	Supply and Installation HDPE JACKET
2016	PT Vale Indonesia	Jetty Vales, Soroako, Luwuk Timur, Sulawesi Selatan	Supply and Installation HDPE SEA JACKET
2016	PT. Bangun Arta Hutama	Jacketing Pile	Supply and Installation Wrapping System For Splash Zone
2016	PT. Panca Duta Prakarsa	Proyek Luwuk, Banggai - Sulawesi	Supply and Installation Wrapping System For Splash Zone
2016	PT. Bangun Arta Hutama	Proyek DSSP Power Kendari	Supply and Installation Wrapping System For Splash Zone
2016	JOB Pertamina - Medco E&P	Installation Cathodic Protection for Senoro Toili	Supply and Installation HDPE Splash Guard
2017	PT. Banda Tiba	Pelabuhan Depapre, Papua	Supply and Installation Composite Wrapping System
2017	PT Surya Cipta Jaya Perkasa	Maintenance	Supply Petrolatum Tape & TAM Primer Paste

Spesifikasi HDPE oleh SOLMAX (Canada)



SOLMAX

PROPERTY	TEST METHOD	FREQUENCY ⁽¹⁾	UNIT	Solmax 480-9000
SPECIFICATIONS				
Thickness (min. avg.)	ASTM D-5199	Every roll	mm	2.00
Thickness (min.)	ASTM D-5199	Every roll	mm	1.80
Resin Density	ASTM D-1505	1/Batch	g/cc	< 0.940
Melt Index - 190/2.16 (max.)	ASTM D-1238	1/Batch	g/10 min	1.0
Sheet Density (8)	ASTM D-792	Every 10 rolls	g/cc	> 0.94
Carbon Black Content (9)	ASTM D-4218	Every 2 rolls	%	2.0 - 3.0
Carbon Black Dispersion	ASTM D-5596	Every 10 rolls	Category	Cat. 1 / Cat. 2
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	100
Tensile Properties (min. avg) (2)	ASTM D-6693	Every 2 rolls		
Strength at Yield			kN/m	31
Elongation at Yield			%	13
Strength at Break			kN/m	57
Elongation at Break			%	700
Tear Resistance (min. avg.)	ASTM D-1004	Every 5 rolls	N	250
Puncture Resistance (min. avg.)	ASTM D-4833	Every 5 rolls	N	707
Dimensional Stability	ASTM D-1204	Per formulation	%	± 2
Stress Crack Resistance (SP-NCTL)	ASTM D-5397	1/Batch	hr	500
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation		
HP OIT (min. avg.)	ASTM D-5885		%	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation		
HP-OIT (min. avg.)	ASTM D-5885		%	50
SUPPLY SPECIFICATIONS (Roll dimensions may vary ±1%)				
Roll Dimension - Width	-		m	8.00
Roll Dimension - Length	-		m	105.0
Area (Surface/Roll)	-		m ²	840



Spesifikasi HDPE oleh PEM Korea



Properties	Units	Test Method	PEM 10	PEM 15	PEM 20	PEM 25	PEM 30
Thickness (Ave.) - Lowest individual of 10 values	mm	ASTM D5199	1.0 -5%	1.5 -5%	2.0 -5%	2.5 -5%	3.0 -5%
Density(Min.)	g/cm3	ASTM D792	0.94	0.94	0.94	0.94	0.94
Tensile Properties <small>Note 1.</small>							
- Tensile Strength at Yield	kN/m		15	23	30	38	44
- Tensile Strength at Break	kN/m	ASTM D6693	27	41	54	68	80
- Elongation at Yield	%	Type IV	12	12	12	12	12
- Elongation at Break	%		700	700	700	700	700
Tear Resistance	N	ASTM D1004	125	187	249	311	374
Puncture Resistance	N	ASTM D4833	320	480	640	800	960
Stress Crack Resistance	hours	ASTM D5397	300	300	300	300	300
Carbon Black Content	%	ASTM D1603	2~3	2~3	2~3	2~3	2~3
Carbon Black Dispersion	Category	ASTM D5596	Note 2	Note 2	Note 2	Note 2	Note 3
Oxidative Induction Time (Min. Ave.)							
Standard OIT	min.	ASTM D3895	100	100	100	100	100
Oven Aging at 85°C		ASTM D5721					
Standard OIT, retained after 90days (Min. Ave.)	%	ASTM D3895	55	55	55	55	55
UV Resistance <small>Note 3.</small>							
High Pressure OIT, retained after 1600 hours (Min. Ave.) <small>Note 4.</small>	%	ASTM D5885	50	50	50	50	50
Roll Length	M		200	150	125	100	80
Roll Width	M		6.5	6.5	6.5	6.5	6.5
Roll Area	SQM		1300	975	812.5	650	520

Spesifikasi HDPE oleh AGRU (Austria)



**Smooth
Liner®
HIGH DENSITY
POLYETHYLENE**

PRODUCT DATA

Property	Test Method	Frequency	Minimum Average Values				
Thickness (minimum avg), mil (mm)	ASTM D5199	Per Roll	30 (0.75)	40 (1.0)	60 (1.5)	80 (2.0)	100 (2.5)
Thickness (minimum), mil (mm)			27 (0.68)	36 (0.9)	54 (1.35)	72 (1.8)	90 (2.25)
Density, g/cc, minimum	ASTM D792, Method B	200,000 lb	0.94	0.94	0.94	0.94	0.94
Tensile Properties (both directions)	ASTM D6693, Type IV						
Strength @ Yield, lb/in width (N/mm)	2in/minute	20,000 lb	66 (11.6)	88 (15.4)	132 (23.1)	176 (30.8)	220 (38.5)
Elongation @ Yield, % (GL=1.3 in)			12	12	12	12	12
Strength @ Break, lb/in width (N/mm)			120 (21)	160 (28)	240 (42)	320 (56)	400 (70)
Elongation @ Break, % (GL=2.0 in)			700	700	700	700	700
Tear Resistance, lbs (N)	ASTM D1004	45,000 lb	22 (98)	30 (133)	45 (200)	60 (267)	72 (320)
Puncture Resistance, lbs (N)	ASTM D4833	45,000 lb	60 (267)	80 (356)	120 (534)	160 (712)	190 (845)
Carbon Black Content, % (range)	ASTM D4218	20,000 lb	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Carbon Black Dispersion (Category)	ASTM D5596	45,000 lb	Only near spherical agglomerates: 10 views Cat. 1 or 2				
Stress Crack Resistance (SP NCTL), hrs.	ASTM D5397 Appendix	200,000 lb	500	500	500	500	500
Oxidative Induction Time, minutes	ASTM D3895, 200°C, 1 atm O ₂	200,000 lb	≥140	≥140	≥140	≥140	≥140

AGRУ America's geomembranes are certified to pass Low Temp. Brittleness via ASTM D746 (-80°C), Dimensional Stability via ASTM D1204 (±2% @ 100°C). Oven Aging and UV Resistance are tested per GRI GM 13. These product specifications meet or exceed GRI's GM13.

SUPPLY INFORMATION (STANDARD ROLL DIMENSIONS)

THICKNESS		WIDTH		LENGTH		AREA (APPROX.)	
mil	mm	ft	m	ft	m	ft ²	m ²
30	0.75	23	7	1,175	358	27,025	2,511
40	1.0	23	7	900	274	20,700	1,923
60	1.5	23	7	600	183	13,800	1,282
80	2.0	23	7	455	139	10,465	972
100	2.5	23	7	365	111	8,395	780



Spesifikasi HDPE oleh HONGXIANG (China)

HONGXIANG
Geosynthetics You can trust

HONGXIANG NEW GEO-MATERIAL CO., LTD Certificate of Analysis				
PRODUCT NAME		HDPE OUTER COVER		SIZE
SAMPLE FROM		WORKSHOP		
BATCH NO		20140725	TESTING DATE	2014.7.25
NOs	ITEM	UNIT	RESULT	CONCLUSION
1	Thickness	mm	2.01	PASS
2	Tensile Strength	Mpa	25.2	PASS
3	Elongation	%	559	PASS
4	Rectangular tear strength	N/mm	112	PASS
5	Carbon Black	%	2.2	PASS
6	Water vapour permeability coefficient	g.cm/cm ² .s. pa	0.9×10 ⁻¹³	PASS
7	-70°C Embrittlement performance and low temperature impact		PASS	
CONCLUSION		CONFIRM TO:GB/T17643-1998		

TESTED BY:LIU HONGYU APPROVED BY:ZHANG NING

This certificate is issued electronically and it is valid without a signature.





TERIMA KASIH