



Jl. Jababeka IV SFB Blok T-1A
Cikarang Industrial Estate
Bekasi, Indonesia

CERTIFICATE OF ANALYSIS
(STRETCH FILMS FOR PACKAGING)

Doc No
Issue Date
Rev No

FM-QC-010
12-Aug-19
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Date : 02-Dec-22
Customer name : NORENGROS AS
Products Code : FG-EHBCL04500300200A2ENO
Product Type : Polyethylene films for packaging (Stretch films)
Grade : Hand Grade 450 mm x 300 m x 20 um
Lot No : 02122221
Certificate No : TPI/12/1/23361839 SO-22-K084

Dimension, Physical Properties & others

No	Item	Standard	Result	Method
1	Thickness (+/-1um)	19 - 21	20	Dial gauge
2	Width (+/-5mm)	445 - 455	450	Steel measure
3	Length (+/-5m)	295 - 305	302	Machine Counter
4	Tensile strength (MPa)	(MD) 35-38 (TD) 12-15	36.2 13.4	ASTM D 882
5	Elongation at break (%)	(MD) 360-380 (TD) 560-600	370 580	
6	Dart Impact (gram)	45-55	55	ASTM D 1709
7	Tear Resistance (mN)	(MD) 250-500 (TD) 3700-4000	364 3845	ASTM D 1922
8	Peel cling (mN)	10 ($\pm$ 10%)	10.3	ASTM D 5458
9	Guarantee stretch %	Max 150	150	HSTM
10	Force at Quality Test (Kg)	27-29	27.68	

Date : February 9, 2023

PT TEKPAK Indonesia

QA/TS

Plant Manager