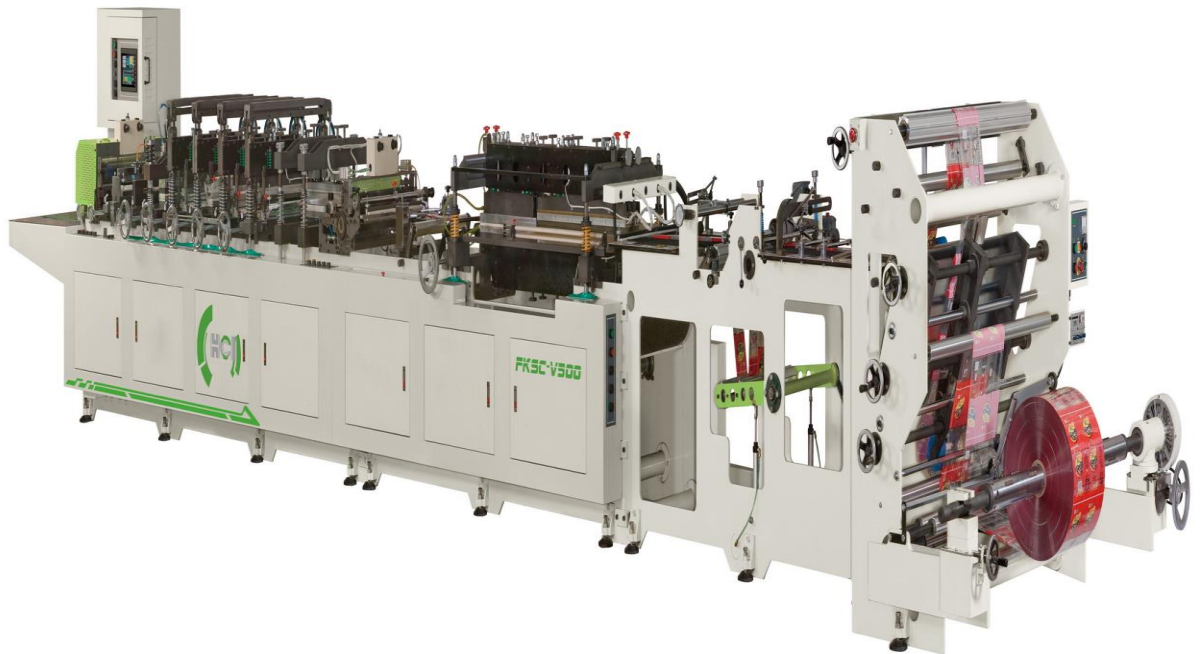


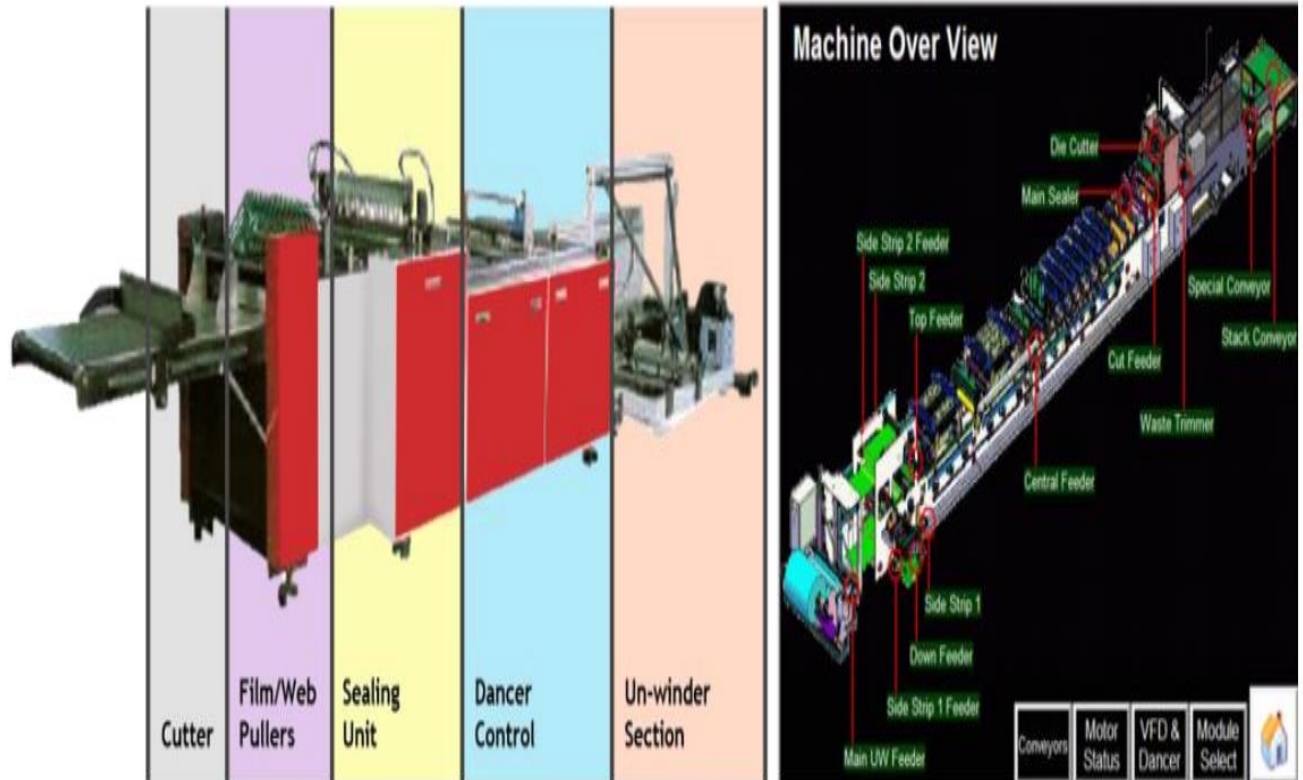
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2. Soejanto. Irwan, (2009). Desain Eksperimen dengan Metode Taguchi. Edisi Pertama, Yogyakarta: Graha Ilmu.
3. Najarzadeh, Zahra (2014). *Control And Optimization of Sealing Layer in Film. Thesis DÉPARTEMENT DE GÉNIE CHIMIQUE ÉCOLE POLYTECHNIQUE DE MONTRÉAL, UNIVERSITÉ DE MONTRÉAL.*

Lampiran 1 : Gambar Mesin Bag Making



Lampiran 2 Bagian- bagian Mesin Bag Making

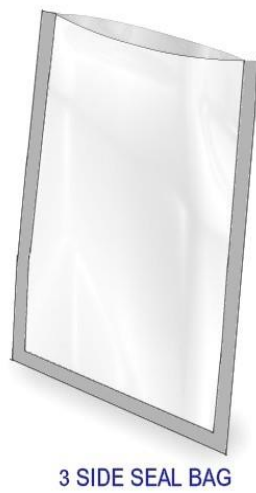


Lampiran 3: Produk- Produk Bag Making

1. Bag center seal



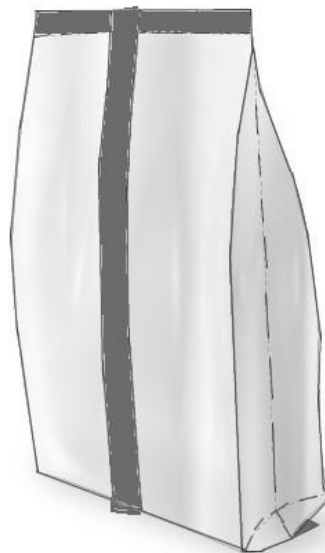
2. Bag three side



3. Bag standing pouch

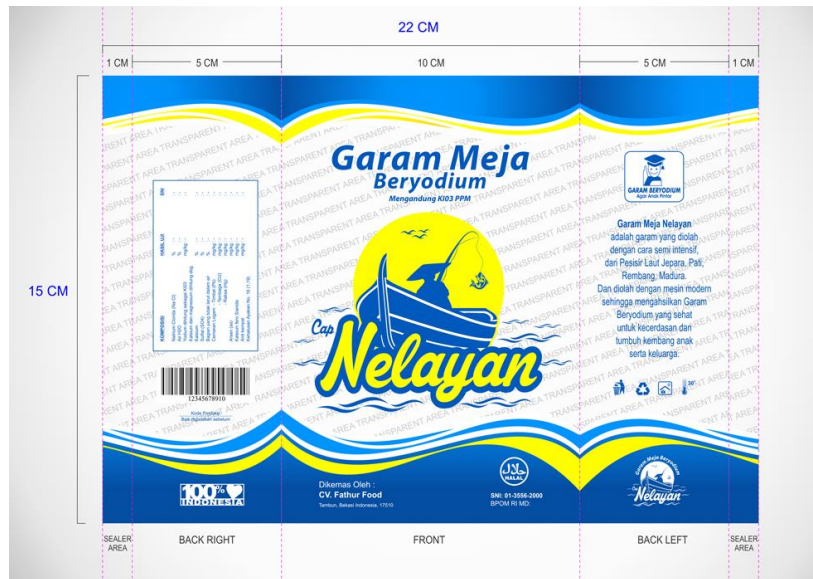


4. Bag Guzzet



CENTER SEAL WITH GUSSET

Lampiran 4: Kemasan Garam



Lampiran 5: Seal atas (*front*) dan Center seal(*back*) pada Kemasan Garam



Lampiran 6: Mekanisme Pengesealan Kemasan Garam (*Center seal*)

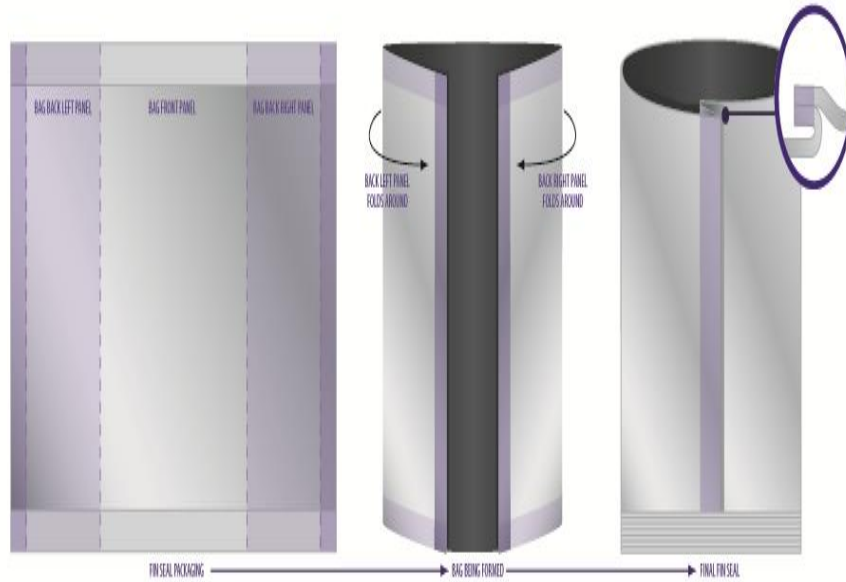
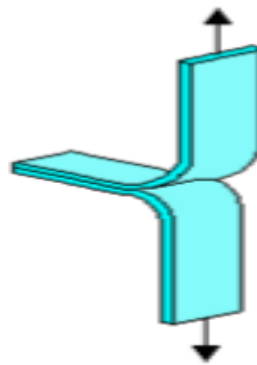


Figure 1



Seal Strength Test

Lampiran 7 : Penampakan *Seal Atas* (MD) dan *Center Seal* (TD) pada Kemasan Garam

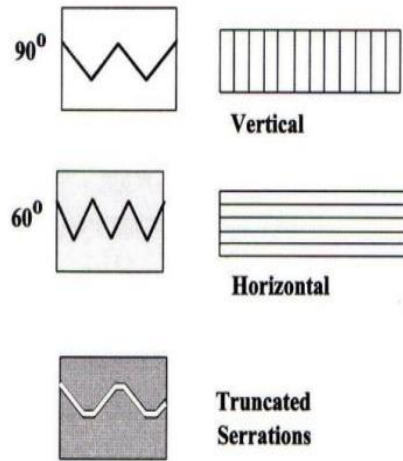
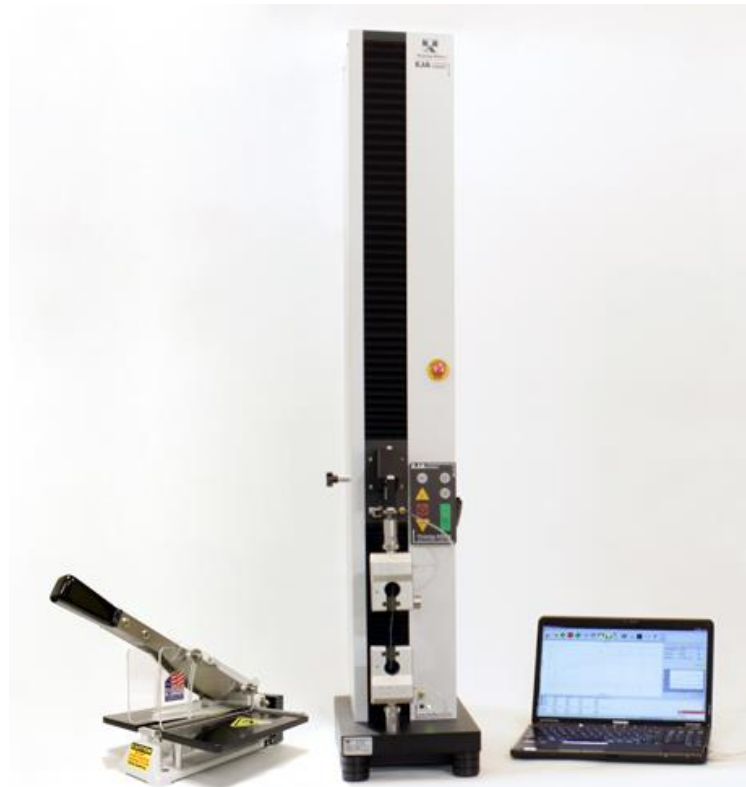
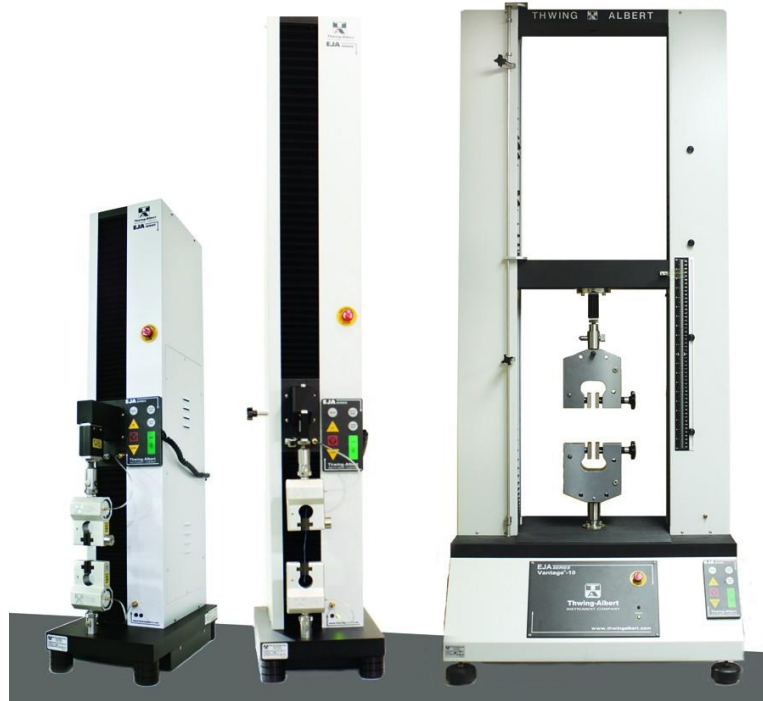


Figure 2-2 Cross section and top view of serrated seal jaws (Selke et al., 2004)

Lampiran 7: Alat Heat Sealer



Lampiran 8: Alat Universal Testing Machine (Uji Tarik)



Lampiran 9 : Simulasi Proses Sealing material seal

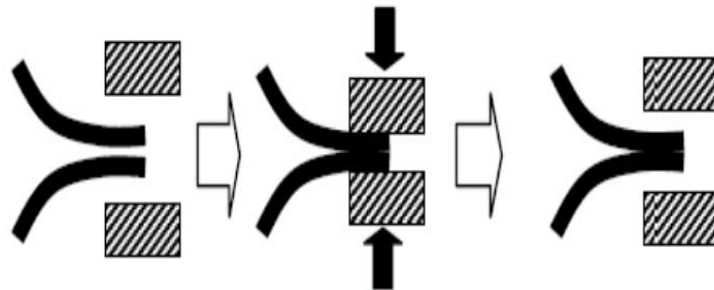


Figure 2-1 Schematics of heated bar sealing of two films

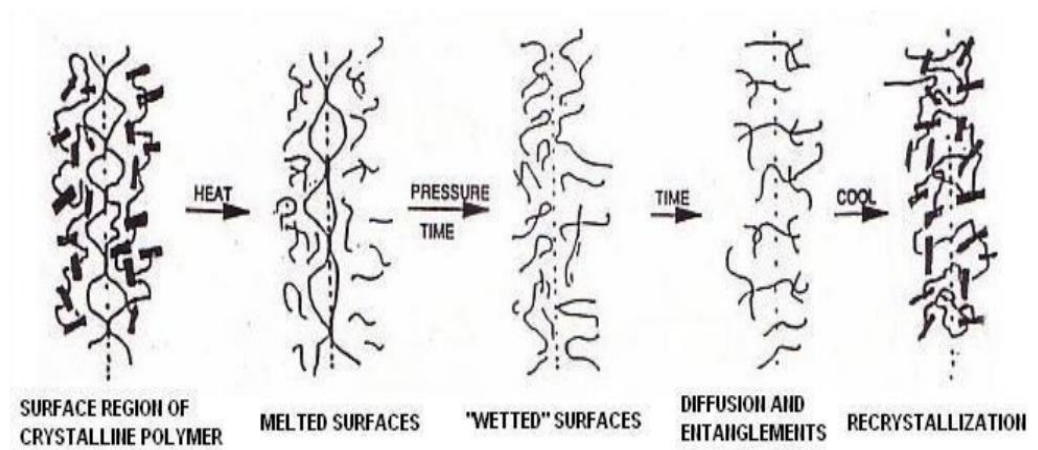
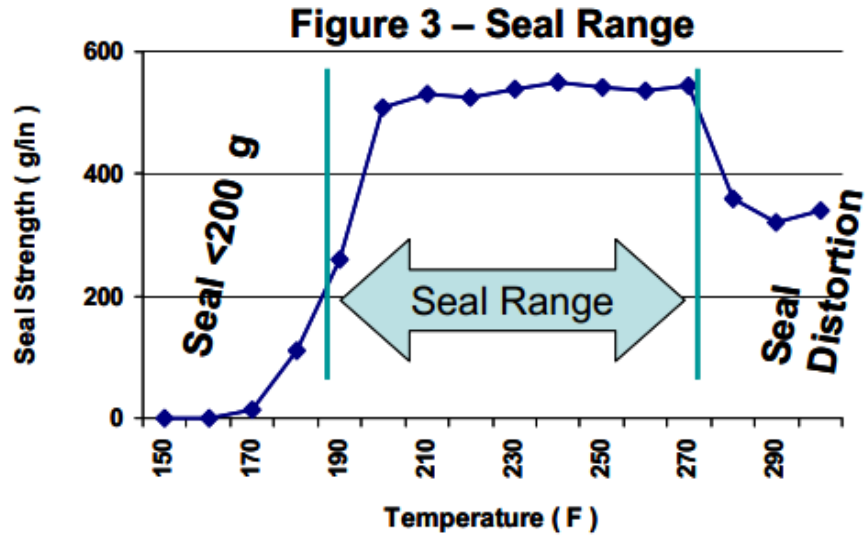


Figure 2-3 Molecular mechanisms involved in the heat sealing of two single-layer films (Stehling and Meka, 1994)

Lampiran 10: *Range Seal* pada Proses Pengesealan



Lampiran 11 : Kurva Uji Tarik (*Sealing Strength*)

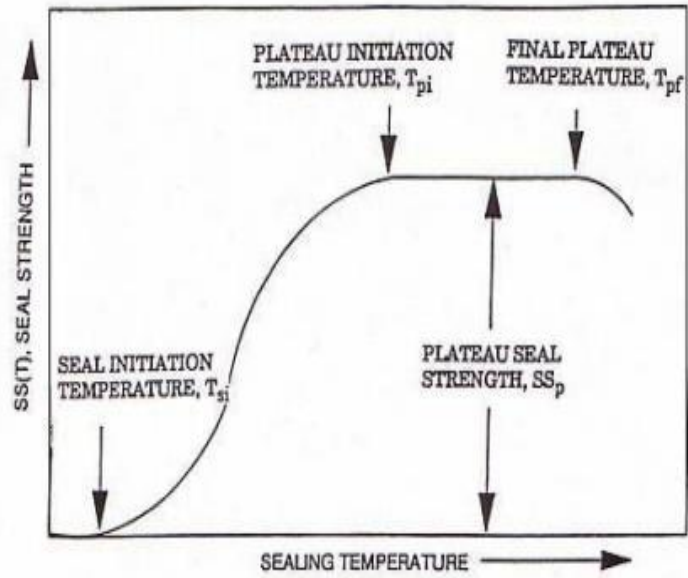


Figure 2-8 Schematic of general heat sealing curve, $SS(T)$, seal strength as a function of sealing temperature for semicrystalline polymers (Stehling and Meka, 1994)

Lampiran 12 :uji tarik/ T-peel pada kemasan garam

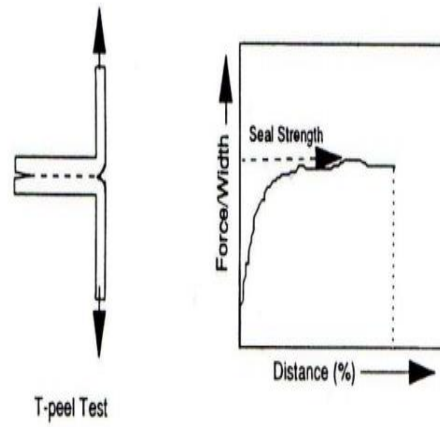


Figure 2-4 Schematic of the T-peel test and obtained force-displacement curve (Meka and Stehling, 1994)

Lampiran 13: Technical Data Sheet dari Supplier

EXTRUSION COATING GRADE : SL-G/0M

2000 11 15

MELT FLOW INDEX	ASTM D 1238	g/10min	25
DENSITY	ASTM D 1505	g/cm ³	0.9
TENSILE STRENGTH	ASTM D 638	Kg/cm ²	230
ELONGATION AT BREAK	ASTM D 638	%	>300
FLEXURAL MODULUS	ASTM D 790	Kg/cm ²	8,000
ROCKWELL HARDNESS	ASTM D 785	R	90
IZOD IMPACT STRENGTH	ASTM D 256	Kg · cm/cm	10
VICAT SOFTENING POINT	ASTM D 1525	°C	130
MELTING POINT	ASTM D 2117	°C	150
HAZT	ASTM D 1003	%	0
HEAT SEAL TEMP.	HPC METHOD	°C	132
CHARACTERISTICS	<ul style="list-style-type: none"> • GOOD HEAR-IN PROPERTY • GOOD BOND STRENGTH AND TRANSPARENCY • OIL & MOISTURE PERMEATION RESISTANCE 		
APPLICATIONS	<ul style="list-style-type: none"> • EXTRUSION COATING OR BOPP FILM 		

* The figures indicated on the table are standard values.
 ** Please consult HPC RESEARCH INSTITUTE for additional information
 Tel. 02-42-079-1500

SEETEC DL-670M

MAJOR CHARACTERISTICS

- ▶ Good stiffness
- ▶ Good processability
- ▶ Good pigment dispersion
- ▶ Good bond strength

PHYSICAL PROPERTIES

Properties	Test Method	Unit	DL-670M
Melt Flow Rate at 230°C	ASTM D 1238	g/10min	28
Density	ASTM D 792	g/cm ³	0.90
Tensile Strength at Yield	ASTM D 638	Kg/cm ²	230
Elongation at Break	ASTM D 638	%	>300
Flexural Modulus	ASTM D 790	Kg/cm ²	8,000
Rockwell Hardness	ASTM D 785	R	86
IZOD Impact Strength at 23°C	ASTM D 256	Kg · cm/cm	5.0
VICAT Softening Point	ASTM D 1525	°C	128
HAZE 2mm	ASTM D 746	%	55
Heat Seal Temperature*	HPC'S	°C	128

The figures indicated on the table are standard values.
 * Measured on 30 μm CPP film made of DL-670M

APPLICATIONS


- ▶ Extrusion coating on BOPP film

PROCESSING CONDITIONS

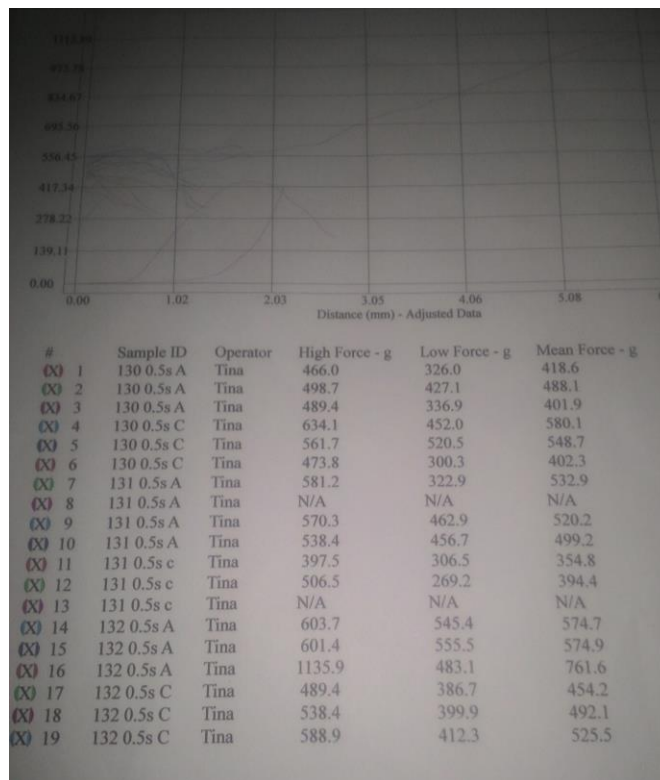
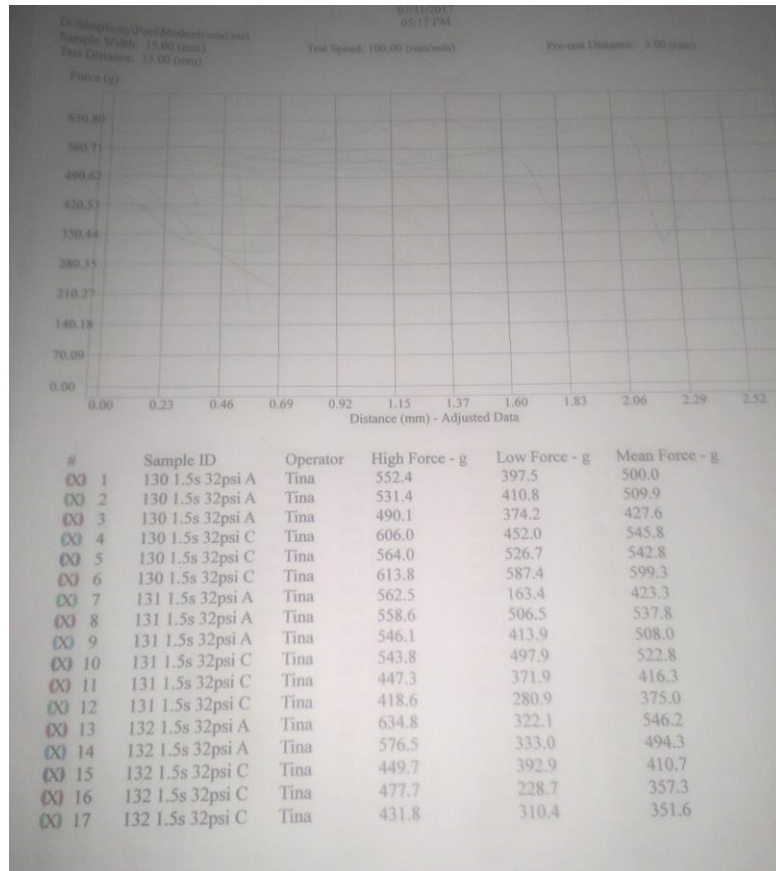
- ▶ Processing temperature : 200 - 310°C
- ▶ Resin temperature : 280 - 310°C
- ▶ Chill roll temperature : 10 - 50°C
- ▶ Air gap : 90 - 100mm

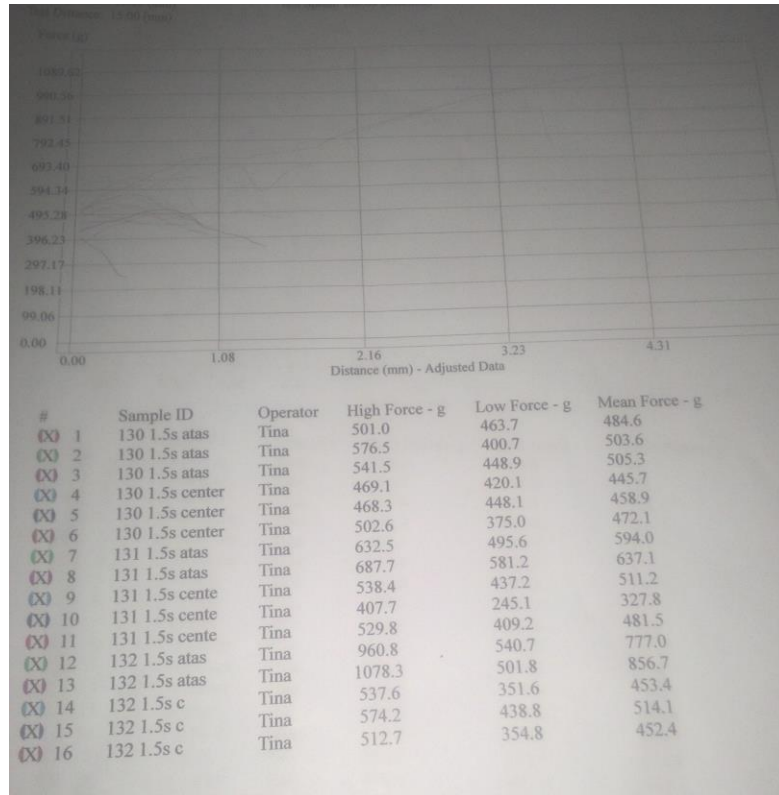
PACKAGE

- ▶ 25kg bag
- ▶ 500kg flex-con bag


 Trademark of **Lotte Daesan Petrochemical Corp.** in KOREA
 Lotte Gwanak Tower Bldg 395-67 Shindarbang-Dong, Dongjak-Gu
 Seoul Korea ☎ +82-2-8294-265

Lampiran 14: Hasil Uji Tarik





30	129 1s center	Tina	470.1	240.4	378.8
31	130 1s atas	Tina	562.5	385.1	502.1
32	130 1s atas	Tina	456.7	334.5	418.1
33	130 1s atas	Tina	466.8	434.9	451.1
34	130 1s center	Tina	424.0	397.5	412.0
35	130 1s center	Tina	553.9	322.9	470.2
36	130 1s center	Tina	565.6	475.3	543.2
37	131 1s atas	Tina	505.7	310.4	433.2
38	131 1s atas	Tina	477.7	406.1	432.2
39	131 1s atas	Tina	466.0	262.2	392.4
40	131 1s center	Tina	489.4	302.6	413.8
41	131 1s center	Tina	536.8	464.5	513.2
42	131 1s center	Tina	580.4	511.1	540.7
43	131 1s center	Tina	529.0	421.7	484.7
44	132 1s atas	Tina	543.8	480.8	518.3
45	132 1s atas	Tina	616.9	429.4	541.6
46	132 1s atas	Tina	563.3	306.5	498.9
47	132 1s center	Tina	600.6	405.3	516.3
48	132 1s center	Tina	536.8	399.1	485.6
48	132 1s center	Tina	478.5	272.3	393.4