



**DEPARTEMEN TEKNIK MESIN**  
**FAKULTAS TEKNIK UNIVERSITAS INDONESIA**

Kampus Baru UI Depok 16424, Telp. (021) 7270032, 7864233, Fax. (021) 7270033, e-mail : mesin@eng.ui.ac.id

Nama Lab/Institusi : Balai Pengkajian Teknologi Polimer BPPT  
Alamat : Kawasan Puspiptek gedung 460- Serpong  
Kabupaten Tangerang  
BANTEN 15314  
PiC : Wawas Swathatafrijiah, MSc.  
Jabatan : Kepala Balai  
Telepon : 021 - 7563360  
Fax : 021 - 7560057  
Email : [stpoffice@sentrapolimer.com](mailto:stpoffice@sentrapolimer.com)  
Website : <http://www.sentrapolimer.com>

No.	Nama Peralatan	Spesifikasi teknis
1	Universal Testing Machine	Characterization of Mechanical properties under Tension, Compression, Bending, Peels, Shear, Load
2	Impact Tester (charpy)	Characterization of Under Impact Load
3	Falling Weight Test	Practical Test for Plastic Parts Under Drop Weight
4	Bursting Test	Life Indurance Test for Pipes Under Pressure
5	Hardness for Rubber	Shore A, D and Ball Indentation, Thermoplastics, Thermosets
6	Friction Test	Coefficient of Friction (COF)
7	Vibration Shaker	Vibration Resistance Test (Sine, Shock, Random)
8	Salt Spray Chamber	Corrosion Resistance of Plastics
9	Climatic Room	Cycle for Humidity (0%-95%) and Temperature (420 until +1990 C)
10	Xenon Arc Exposure	Weather –0- Meter (sun simulation)
11	UV-Weathering	UV Resistance
12	Dielectric Testing	Volume and surface resistivity
13	Spark Tester	Porosity of coating
14	Resistance	Testing of electrical insulation
15	Smoke chamber	flame/heat exposure test NBS smoke density
16	Flammability test	flame/heat exposure test -burning raid UL 94
17	Sieve machine	Particle size down to 45 $\mu$ m
18	Sedimentometer	Particle size 1-250 $\mu$ m
19	Extrusion	MFR/MFI
20	Extrusion	Blown film, extrusion and rheomix, Flow behavior of melts
21	Injection Molding	Pilot Scale (40 ton)
22	Compression Molding	Pilot Scale
23	Extrusion	Pelletizer, Pipe, Sheet, Extrusion on Pilot Equipment
24	Dry Mixer	Additive, Blending
25	Auto Clave	Composites
26	Wet Lamination Unit	Spray and Hand Lay Up for Composite

27	Thermal Analysis	Water Vapor Transmission Rate Toward Plastics Film (WVTR), Oxygen Transmission Rate Toward Water Vapor (ITR), Filler Content, Carbon Black Content, Plastic Composition (TGA), Expansion and Shrinkage analysis (TMA), Effect Temperature Content Vibration on Material Performance (DMTA), Tg, Tm, Crystallinity, OIT (DSC)
28	Spectroscopy	FTIR : Polymer Identification, UV-vis : Plastic Transparency Analysis, Qualitative and Quantitative Additive Analysis
29	Chromatography	GC for Volatile Matter and Additive Content Analysis, Gas Permeability Measurement for OTR, N2, CO2, WVTR, HPLC for Additive Content Analysis
30	Wet chemistry	Analytical chemistry: acid number solvent resistance, K-value (Molecular weight, average determination by viscosity)
31	Polymerization	Computer Controlled Polymerization Reactor, Stainless Steel Reactor, Anionic Polymerization (lab reactor for inert gas and low temperature)
32	Microbiology	Determination of bacteria, fungi, yeast, germs
33	Optical properties	Specular gloss, colorimeter (Determination of Color-Space or Color Matching)
34	Microscopy	Micro-EDX with X-Ray Fluorescence, Stereo Microscopy Optic, Scanning Electron Microscope (SEM) with EDAX facility
35	Thermal conductivity	Determination of I-value
36	HDT/Vicat	Temperature range of plastic utilization
37	Nastran	Structural analysis
38	Moldflow	Injection molding process analysis
39	Catia	Computer Aided Design