

Sample Preparation			
Description		Unit	Company
1	Precision Cut-off machine	1 - 3 times	Time
		Extra points	Time
2	Hot mounting		Sample
3	Vacuum Impregnation/Cold Mounting		Sample
4	Polishing machine		
	Operating time		Hr
	Sandpaper		Step
	Diamond		Step
5	Ion Milling		Hr
6	CPD (Critical Point Dryer)		Time
7	Freezer mill		Time
8	Laser cutting		Hr
9	CNC Milling (Computer Numerical Control)		Hr
10	3D Printing		Hr
	Polylactic acid (PLA)		KG.
Optical Microscope			
Description		Unit	Company
1	Optical Microscope with High-definition color camera head (DS-Fi2)		Hr
2	Optical Microscope with PC control-based control unit (DS-U3)		Hr
3	Optical Microscope (Eclipse LV-N, LV100DA-U) With Function grain size and Cast iron (NIS Element D)		Hr
Melt Flow Index Test			
Description		Unit	Company
Common plastic			
1	MethodA: Manual cut-off (MFI, Melt Density)		Sample
2	MethodB: Automatic method (MVR, MFI) :Customer already know Melt Density		Sample
3	MethodC: Automatic method: Half Die (High MFI \geq 70 g/10min)		Sample
4	DryingOven (if drying less than 3 hr.: 150 baht per sample)		Sample
Engineering plastic			
1	MethodA: Manual cut-off (MFI, Melt Density)		Sample
2	MethodB: Automatic method (MVR, MFI) :Customer already know Melt Density		Sample
3	MethodC: Automatic method: Half Die (High MFI \geq 70 g/10min)		Sample
4	DryingOven (if drying less than 3 hr.: 150 baht per sample)		Sample
If the customer choose Method B and need Melt Density Calculation: 500 baht per sample			
Heat Distortion Temperature Test			
Description		Unit	Company
1	Operating Test (HDT or VICAT)		Test
Nano Search Microscope			
Description		Unit	Company
1	Operating time		Hr
2	LSM/SPM		Pic.
3D Digital Video Microscope			
Description		Unit	Company
1	Operating time		Hr
Atomic Forced Microscope (AFM 5500M)			
Description		Unit	Company
1	Operating time		Hr
2	AFM Image		Pic.

Field Emission Scanning Electron Microscopes (FE-SEM)					
Description		Unit	Company		
			SU8230	SU8030	SU5000
1	Operating time	Hr	4,000	3,800	3,500
2	SEM	Pic.	100	100	100
3	Coating	Time	200	200	200
4	EDS (Energy Dispersive X-Ray Spectroscopy)	Pic.	500	500	500
5	EBSD (Electron Backscatter Diffraction)				
	mapping	Pic.	1,000	-	-
	line scan, point, area	Pic.	500	-	-
Transmission Electron Microscope (TEM)					
Description		Unit	Company		
1	Operating time	Hr	4,500		
2	TEM	Pic.	100		
	Dark field	Pic.	100		
	Bright field	Pic.	100		
	Diffraction pattern	Pic.	100		
3	EDS (Energy Dispersive X-Ray Spectroscopy)				
	Mapping	Pic.	1,000		
	Line scan	Pic.	500		
	Point scan	Pic.	500		
	Area scan	Pic.	500		
X-ray Photoelectron Spectroscopy (XPS)					
Description		Unit	Company		
1	Operating time	Hr	6,200		
2	Component analysis	Element	1,000		
Micro-Energy Dispersive X-ray Fluorescence Spectrometer (Micro-EDXRF)					
Description		Unit	Company		
1	Sample testing (1 point)	Sample	1,700		
2	Extra testing point in same sample	Point	500		
3	Sample preparation with film	Sample	300		
4	Testing with Helium path (For liquid sample)	Time	2,000		
Single-Crystal X-ray Crystallography (SC-XRD)					
Description		Unit	Company		
Small molecule (Mole Molecule < 5,000)					
1	Screen crystal with Optical Microscope and crystal mount	Sample	500		
2	Screen crystal and unit cell checking	Hr	1,500		
3	Full data collection (Room Temperature)	Hr	3,700		
4	Full data collection (Low Temperature)	Hr	4,500		
5	Analysis structure	Sample	15,000		
Macromolecule (Mole Molecule < 5,000)					
6	Screen crystal with Optical Microscope and crystal mount	Sample	850		
7	Screen crystal and unit cell checking	Hr	1,800		
8	Full data collection (Room Temperature)	Hr	4,500		
9	Full data collection (Low Temperature)	Hr	5,200		
10	Analysis structure	Sample	22,000		
Small Angle X-Ray Scattering (SAXS)					
Description		Unit	Company		
1	Operating time	Hr	7,300		

Wavelength Dispersive X-Ray Fluorescence (WDXRF)			
Description		Unit	Company
1	Sample testing	Sample	1,700
2	Sample Preparation	Sample	500
X-ray Powder Diffraction (XRD)			
Description		Unit	Company
1	Sample preparation	Sample	500
2	Sample Preparation with Freezer mill	Time	1,200
3	Sample testing	Sample	1,700
UV-Vis-NIR Spectrophotometer (UV-VIS-NIR)			
Description		Unit	Company
1	Sample testing (30 minute)	Sample	900
If testing more than 30 minutes cost 900 baht per 30 minute more per sample			
Gas Chromatography - Mass Spectrometry (GC-MS)			
Description		Unit	Company
Qualitative			
Head space			
1	Sample preparation	Sample	600
2	Customer condition	Sample	2,500
3	Trial Condition	Sample	8,000
Auto Injection			
1	Sample preparation	Sample	500
2	Customer condition	Sample	1,500
3	Trial Condition	Sample	4,500
Quantitative		Unit	Company
Head space			
1	Sample preparation	Sample	600
2	Calibration Curve (Customer standard material)	Set	800
3	Customer condition	Sample	2,500
4	Trial Condition	Sample	9,000
Auto Injection			
1	Sample preparation	Sample	700
2	Calibration Curve (Customer standard material)	Set	800
3	Customer condition	Sample	1,500
4	Trial Condition	Sample	6,000
Liquid Chromatography - Mass Spectrometry/ Mass Spectrometry (LC-MS/MS)			
Description		Unit	Company
1	Trial condition within 3 h (for 1 sample)	Sample	16,000
2	Customer condition (for 1 sample)	Sample	7,000
3	If more than 1 sample	Sample	2,100
Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP-AES)			
Description		Unit	Company
1	10 Elements (Digestion sample)	Sample	3,500
1	Oil Sample Follow ASTM D5185 (22 Elements)	Sample	5,000
Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)			
Description		Unit	Company
1	10 Elements (Digestion sample)	Sample	4,000

High-performance liquid chromatography (HPLC)			
Description		Unit	Company
1	Trial condition within 3 h (for 1 sample)	Sample	4,300
2	Customer condition (for 1 sample)	Sample	3,400
3	If more than 1 sample	Sample	1,400
Gas Chromatography - Mass Spectrometry / Mass Spectrometry (GC-MS/MS)			
Description		Unit	Company
Qualitative			
EI mode : Auto -Injection			
1	Trial Condition	Sample	5,300
2	Customer condition	Sample	2,600
EI mode : Headspace			
1	Trial Condition	Sample	9,000
2	Customer condition	Sample	4,400
EI mode : SPME			
1	Trial Condition	Sample	9,400
2	Customer condition	Sample	4,500
NCI & CI mode : Auto - Injection			
1	Trial Condition	Sample	7,000
2	Customer condition	Sample	3,500
NCI & CI mode : Headspace			
1	Trial Condition	Sample	12,400
2	Customer condition	Sample	6,000
NCI & CI mode : SPME			
1	Trial Condition	Sample	12,700
2	Customer condition	Sample	6,200
Quantitative		Unit	Company
EI mode : Auto -Injection			
1	Trial Condition	Sample	8,800
2	Customer condition	Sample	5,400
EI mode : Headspace			
1	Trial Condition	Sample	12,500
2	Customer condition	Sample	7,400
EI mode : SPME			
1	Trial Condition	Sample	13,000
2	Customer condition	Sample	7,800
NCI & CI mode : Auto - Injection			
1	Trial Condition	Sample	12,200
2	Customer condition	Sample	7,100
NCI & CI mode : Headspace			
1	Trial Condition	Sample	17,500
2	Customer condition	Sample	9,900
NCI & CI mode : SPME			
1	Trial Condition	Sample	18,000
2	Customer condition	Sample	10,300
Thermal Desorption System (TDS)			
Description		Unit	Company
1	GC-MS with TDS for VOCs	Sample	15,200
2	GC-MS with TDS for VOCs and DNPH	Sample	31,600

Differential Scanning Calorimeter (DSC)				
Description		Unit	Company	
1	Sample testing (-120 to 500 °C)	Sample	2,000	
Thermogravimetric Analysis (TGA)				
Description		Unit	Company	
1	Sample testing (Ambient to 1,100 °C)	Sample	2,000	
Raman Microscope				
Description		Unit	Company	
1	Operating time	hr	3,200	
Enzyme Testing				
Description		Unit	Company	
Individual enzyme	Assay condition			
1	Amylase (U)	(50°C, pH 5.5)	Sample	1,700
2	Alpha-amylase (DU)	(70°C, pH 6.6)	Sample	2,500
3	Alpha-galactosidase (U)	(50°C, pH 5.5)	Sample	2,500
4	Beta-glucanase (U)	(50°C, pH 5.5)	Sample	2,500
5	Beta-glucosidase (U)	(50°C, pH 5.5)	Sample	1,800
6	Beta-xylosidase (U)	(50°C, pH 5.5)	Sample	1,800
7	Cellulase (U)	(50°C, pH 5.5)	Sample	1,700
8	Cellulase (Fpase) (FPU)	(50°C, pH 5.5)	Sample	1,700
9	Dextranase (U)	(37°C, pH 5.5)	Sample	1,700
10	Invertase (U)	(30°C, pH 5.5)	Sample	1,700
11	Laccase (U)	(30°C, pH 5.5)	Sample	1,800
12	Lipase (U)	(37°C, pH 8.0)	Sample	1,700
13	Mannanase (U)	(50°C, pH 5.5)	Sample	1,800
14	Pectinase (U)	(50°C, pH 5.5)	Sample	1,700
15	Phytase (U)	(40°C, pH 5.5)	Sample	1,700
16	Protease (U)	(37°C, pH 7.5)	Sample	1,700
17	Xylanase (U)	(50°C, pH 5.5)	Sample	1,800
18	Pullulan (U)	(40°C, pH 5.0)	Sample	2,500
19	Glucoamylase (U)	(50°C, pH 4.5)	Sample	2,500
Multi-enzymes		Unit	Company	
Package 1	(Cel, Xyl, Amy, Man, Pro, Phy)	Sample	5,800	
Package 2	(Cel, Xyl, Amy, Man, Pro)	Sample	4,900	
Package 3	(Cel, Xyl, Amy, Man)	Sample	4,200	
Package 4	(Cel, Xyl, Amy)	Sample	3,300	
Sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-Page)		Unit	Company	
12% Tris glycine, marker 10-250 kDa		Sample	800	

Remark

* Another Assay condition (pH) price increase 500 Baht/Sample

* User methods (Extra charge)

****Remark**

- Test Report 1,000.- ฿

Confocal STED			
Description		Unit	Company
1	Operating time	Hr	4,200
2	Image	Pic.	100
Safety Pharmacological Assessment Laboratory			
Description		Unit	Company
Anti-bacteria Test (Qualitative)			
1	AATCC 147	Sample/Bacteria	1,500
2	JIS L 1902	Sample/Bacteria	1,500
3	CLSI M2-A11 (DISK)	Sample/Bacteria	1,500
Anti-bacteria test (Quantitative)			
1	AATCC 100	Sample/Bacteria	3,000
2	JIS L 1902	Sample/Bacteria	3,000
3	JIS Z 2801	Sample/Bacteria	3,500
4	ASTM E 2149	Sample/Bacteria	3,000
5	CLSI M7-A9 (MIC)	Sample/Bacteria	3,000
6	ISO22196 (Accredited ISO/IEC17025)	Sample/Bacteria	3,500

**Remark
- Test Report 1,000.- ฿

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