

Sample Preparation			
Description		Unit	Company
1	Precision Cut-off machine	1 - 3 times	Time
	Extra points	Time	200
2	Hot mounting	Sample	700
3	Vacuum Impregnation/Cold Mounting	Sample	1,100
4	Polishing machine		
	Operating time	Hr	1,000
	Sandpaper	Step	200
	Diamond	Step	400
5	Ion Milling	Hr	1,200
6	CPD (Critical Point Dryer)	Time	1,700
7	Freezer mill	Time	1,200
8	Laser cutting	Hr	2,100
9	CNC Milling (Computer Numerical Control)	Hr	2,100
10	3D Printing	Hr	500
	Polylactic acid (PLA)	KG.	2,000
Optical Microscope			
Description		Unit	Company
1	Optical Microscope with High-definition color camera head (DS-Fi2)	Hr	800
2	Optical Microscope with PC control-based control unit (DS-U3)	Hr	800
3	Optical Microscope (Eclipse LV-N, LV100DA-U) With Function grain size and Cast iron (NIS Element D)	Hr	1,500
Melt Flow Index Test			
Description		Unit	Company
Common plastic			
1	MethodA: Manual cut-off (MFI, Melt Density)	Sample	1,200
2	MethodB: Automatic method (MVR, MFI) :Customer already know Melt Density	Sample	1,200
3	MethodC: Automatic method: Half Die (High MFI ≥ 70 g/10min)	Sample	1,200
4	DryingOven (if drying less than 3 hr.: 150 baht per sample)	Sample	250
Engineering plastic			
1	MethodA: Manual cut-off (MFI, Melt Density)	Sample	1,800
2	MethodB: Automatic method (MVR, MFI) :Customer already know Melt Density	Sample	1,800
3	MethodC: Automatic method: Half Die (High MFI ≥ 70 g/10min)	Sample	1,800
4	DryingOven (if drying less than 3 hr.: 150 baht per sample)	Sample	250
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	2,000
Nano Search Microscope			
Description		Unit	Company
1	Operating time	Hr	3,200
3D Digital Video Microscope			
Description		Unit	Company
1	Operating time	Hr	2,000
Atomic Forced Microscope (AFM 5500M)			
Description		Unit	Company
1	Operating time	Hr	2,200
2	AFM Image	Pic.	100

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	-	-
Transmission Electron Microscope (TEM)					
Description		Unit	Company		
1	Operating time	Hr	4,500		
2	TEM	Pic.	100		
	Dark field/Bright field	Pic.	100		
	Diffraction pattern	Pic.	100		
3	EDS (Energy Dispersive X-Ray Spectroscopy) : Line scan/Point scan/Area scan	Pic.	500		
	EDS (Energy Dispersive X-Ray Spectroscopy) : Mapping	Pic.	1,000		
X-ray Photoelectron Spectroscopy (XPS)					
Description		Unit	Company		
1	XPS Operating time	Hr	6,200		
2	XPS Component analysis	Element	1,000		
3	Ultraviolet Photoelectron Spectroscopy (UPS)-Operation time	Hr	6,800		
4	UPS-Component analysis	Element	1,000		
5	High temperature gas reaction cell-Operation time	Hr	6,800		
6	High temperature gas reaction cell-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	4,600		
2	Nanostructure analysis	Sample	10,000		

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 testing	Sample	1,700
2	Sample Preparation	Sample	500
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
Liquid Chromatography -QTOF (LC-MS/QTOF)			
Description		Unit	Rate 2
1	Qualification (Trial Condition)	Sample	19,500
2	Qualification (Condition)	Sample	8,000
3	Quantitation (Trial Condition)	Sample	31,000
4	Quantitation (Condition)	Sample	20,000
5	More than 1 sample	Sample	3,000
6	MS Library search (10 Analyte)	Sample	1,500
7	MS/MS Library search (10 Analyte)	Sample	3,000

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP-AES)			
Description		Unit	Company
1	10 Elements (Digestion sample)	Sample	3,500
2	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
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

Imaging Mass Spectrometry (IMS)				
Description			Unit	Company
1	Analysis		Sample	14,000
2	ในกรณีที่ใช้เวลาในการ Scan มากกว่า 1 ชั่วโมง คิดเพิ่มครั้งละ 30 นาที		Hr	8,800
3	Sample Preparation with Cyostat		Sample	1,300
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
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
Differantial 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
TMA				
Description			Unit	Company
1	Sample testing		Sample	2,000
Raman Microscope				
Description			Unit	Company
1	Operating time		hr	3,200
Transmission Electron Microscope (TEM 120 kV)				
Description			Unit	Company
1	Operating time		Hr	4,000
2	TEM Image		Pic.	100
3	EDS (Energy Dispersive X-Ray Spectroscopy)		Pic.	500
Enzyme Testing				
Description			Unit	Company
Individual enzyme		Assay condition		
1	Amylase (U)		Sample	1,700
2	Alpha-amylase (DU)		Sample	2,500
3	Alpha-galactosidase (U)		Sample	2,500
4	Beta-glucanase (U)		Sample	2,500
5	Beta-glucosidase (U)		Sample	1,800
6	Beta-xylosidase (U)		Sample	1,800
7	Cellulase (U)		Sample	1,700
8	Cellulase (Fpase) (FPU)		Sample	1,700
9	Dextranase (U)		Sample	1,700
10	Invertase (U)		Sample	1,700
11	Laccase (U)		Sample	1,800

Enzyme Testing				
Description			Unit	Company
Individual enzyme		Assay condition		
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	Pullulanase (U)	(40°C, pH 5.0)	Sample	2,500
19	Glucoamylase (U)	(50°C, pH 4.5)	Sample	2,500
20	Polyphenol oxidase (U)	(25°C, pH 6.5)	Sample	2,100
21	Peroxidase (U)	(25°C, pH 6.0)	Sample	2,100
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

Remark

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

* User methods (Extra charge)

Real-time PCR			
Description		Unit	Company
1	Real-time PCR	Hr	700
2	GMOs		
	2.1 Quantitative: GMO Screening test 35S CaMV – promoter, NOS – terminator (Detected/Not-detected)	Sample	2,500
	2.2 Quantitative detection of genetically modified Maize MON810 in Corn and Corn Products	Sample	3000
3	Meat species and authenticity		
	3.1 Quantitative: Porcine (Pork) Screening test in Food and Feed (Detected/Not-detected)	Sample	3,000
	3.2 Quantitative detection of Porcine (Pork) DNA in Food and Feed	Sample	3500
Protein analysis (SDS-PAGE)			
Description		Unit	Company
1	Sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-Page) Staining : Coomassie Brilliant Blue staining Protein assay type : Bradford protein assay/Lowry protein assay Gel Polyacrylamide percentage : 10%/12%/15% Protein marker : 10-250 kDa	Sample	800
2	Sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-Page) Staining : Silver staining Protein assay type : Bradford protein assay/Lowry protein assay Gel Polyacrylamide percentage : 10%/12%/15% Protein marker : 10-250 kDa	Sample	1,000
Anti-bacteria test			
Description		Unit	Company
1	Qualitative: Antibacterial activity assessment of textile materials : Parallel streak method (AATCC 147)	Sample/Strain	1,500
2	Qualitative: Testing for antibacterial activity and efficacy on textile products (JIS L 1902)	Sample/Strain	1,500
3	Qualitative: Antimicrobial disk susceptibility tests (CLSI M02-A11)	Sample/Strain	1,500
4	Quantitative: Antibacterial finishes on textile materials (AATCC 100)	Sample/Strain	3,500
5	Quantitative: Testing for antibacterial activity and efficacy on textile products (JIS L 1902)	Sample/Strain	3,500
6	Quantitative: Antibacterial products – Test for antibacterial activity and efficacy (JIS Z 2801)	Sample/Strain	3,500

Anti-bacteria test			
Description		Unit	Company
7	Quantitative: Measurement of antibacterial activity on plastics and other non-porous surfaces (ISO 22196)	Sample/Strain	3,500
8	Quantitative: Determination of minimal inhibitory concentrations of aerobic bacteria (CLSI M07-A9)	Sample/Strain	3,000
9	Quantitative: Standard test method for determining the antimicrobial activity of immobilized antimicrobial agents under dynamic contact conditions (ASTM E 2149)	Sample/Strain	3,500
Mutagenicity test			
Description		Unit	Company
1	Bacterial reverse mutation test (Ames test)	Sample/5 Strain	30,000
Total plate count			
Description		Unit	Company
1	Bacteria	Sample	1,500
2	Yeast/Mold	Sample	1,500
3	After sterilization	Sample	2,000
Selective and differential media			
Description		Unit	Company
1	Escherichia coli	Sample	1,500
2	Salmonella sp.	Sample	1,500
3	Vibrio sp.	Sample	1,500
4	Staphylococcus sp.	Sample	1,500
5	Pseudomonas aeruginosa	Sample	1,500
Disinfectant testing			
Description		Unit	Company
1	AOAC official method 961.02 germicidal spray products as disinfectants	Sample/3 strains	15,000
2	Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas (EN 1276)	Sample/4 strains	13,000
HPLC-FLD			
Description		Unit	Company
1	HPLC-FLD : Trial condition within 3 h	Sample	4,300
2	HPLC-FLD : Customer condition	Sample	3,400
3	HPLC-FLD : ตัวอย่างตัวที่ 2 เป็นต้นไป	Sample	1,400
4	Amino acid analysis : Na-Type (17 amino acids)	Sample	11,500
5	Amino acid analysis : Na-Type (ตัวอย่างตัวที่ 2 เป็นต้นไป)	Sample	5,100
6	Amino acid analysis : Li-Type (38 amino acids)	Sample	25,000
7	Amino acid analysis : Li-Type (ตัวอย่างตัวที่ 2 เป็นต้นไป)	Sample	7,900
GC-TCD/BID			
Description		Unit	Company
1	Trial condition within 3 h	Sample	3,800
2	Customer condition	Sample	1,600

HPLC-PDA/RI			
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
Texture Analysis			
Description		Unit	Company
1	Texture Analysis	1 Sample	500
2	Texture Analysis	3 Sample	1,200
3	Texture Analysis	5 Sample	1,800
Mechanical Property Testing			
Description		Unit	Company
1	Tensile test (Rubber and Polymer) 10kN - 100kN, Static type	1 Sample	600
2	Tensile test (Rubber and Polymer) 10kN - 100kN, Static type	3 Sample	1,500
3	Tensile test (Rubber and Polymer) 10kN - 100kN, Static type	5 Sample	2,000
4	Tensile test (Metals and Alloys) 25kN - 100kN, Dynamic type	1 Sample	600
5	Tensile test (Metals and Alloys) 25kN - 100kN, Dynamic type	3 Sample	1,500
6	Tensile test (Metals and Alloys) 25kN - 100kN, Dynamic type	5 Sample	2,000
7	Flexural and Bending test (Polymer and composites) 10kN-100kN, Static type	1 Sample	600
8	Flexural and Bending test (Polymer and composites) 10kN-100kN, Static type	3 Sample	1,500
9	Flexural and Bending test (Polymer and composites) 10kN-100kN, Static type	5 Sample	2,000
10	Flexural and Bending test (Metals and Alloys) 10kN - 100kN, Dynamic type	1 Sample	600
11	Flexural and Bending test (Metals and Alloys) 10kN - 100kN, Dynamic type	3 Sample	1,500
12	Flexural and Bending test (Metals and Alloys) 10kN - 100kN, Dynamic type	5 Sample	2,000
13	Compressive test (Polymer) 10kN - 100kN, Static type	1 Sample	600
14	Compressive test (Polymer) 10kN - 100kN, Static type	3 Sample	1,500
15	Compressive test (Polymer) 10kN - 100kN, Static type	5 Sample	2,000
16	Compressive test (Metals and Alloys) 10kN - 100kN, Dynamic type	1 Sample	600
17	Compressive test (Metals and Alloys) 10kN - 100kN, Dynamic type	3 Sample	1,500
18	Compressive test (Metals and Alloys) 10kN - 100kN, Dynamic type	5 Sample	2,000
19	Torsion test (Metals and Alloys) (Max Torque 200 N-m)	1 Sample	500
20	Torsion test (Metals and Alloys) (Max Torque 200 N-m)	3 Sample	1,200
21	Torsion test (Metals and Alloys) (Max Torque 200 N-m)	5 Sample	1,800
22	Impact test (Polymer) at 23±2 °C, 50±5 %RH (Izod and Charpy)	1 Sample	500
23	Impact test (Polymer) at 23±2 °C, 50±5 %RH (Izod and Charpy)	3 Sample	1,200
24	Impact test (Polymer) at 23±2 °C, 50±5 %RH (Izod and Charpy)	5 Sample	1,800
25	Impact test (Polymer) at 21 °C to -40 °C (Izod and Charpy)	1 Sample	500
26	Impact test (Polymer) at 21 °C to -40 °C (Izod and Charpy)	3 Sample	1,200
27	Impact test (Polymer) at 21 °C to -40 °C (Izod and Charpy)	5 Sample	1,800
28	Liquid Nitrogen 180 kg	Unit	6,500
29	Notching specimen for impact testing (ISO and ASTM)	1 Sample	150
30	Die cutting specimen for tensile testing (ASTM D412)	1 Sample	150

Mechanical Property Testing			
Description		Unit	Company
31	Ring Stiffness, HDPE	1 Sample	600
32	Ring Stiffness, HDPE	3 Sample	1,500
33	Ring Stiffness, HDPE	5 Sample	2,000
34	Pipe Stiffness	1 Sample	600
35	Pipe Stiffness	3 Sample	1,500
36	Pipe Stiffness	5 Sample	2,000
37	Fatigue test (Polymer and Rubber)	1 hour	600
38	Fatigue test (Metals and Alloys)	1 hour	600
39	Tensile test (Rubber and Polymer) 10kN-100kN, Static type at 25°C to 250°C	1 Sample	700
40	Tensile test (Rubber and Polymer) 10kN-100kN, Static type at 21°C to -35°C	1 Sample	700
41	Flexural and Bending test (Rubber and Polymer) 10kN-100kN, Static type at 25°C to 250°C	1 Sample	700
42	Flexural and Bending test (Rubber and Polymer) 10kN-100kN, Static type at 21°C to -35°C	1 Sample	700
43	Rockwell Hardness (5 points)	1 Sample	500
44	Rockwell Hardness (Additional point)	1 point	100
45	Brinell Hardness (5 points)	1 Sample	500
46	Brinell Hardness (Additional point)	1 point	100
47	Vickers Microhardness (5 points)	1 Sample	650
48	Vickers Microhardness (Additional point)	1 point	100
49	Vickers Microhardness (Depth Profile)	1 Sample	1,000
50	Vickers Microhardness (Depth Profile), (Additional area)	1 point	250
51	Durometer Hardness (5 points)	1 Sample	500
52	Durometer Hardness (Additional point)	1 point	100
Immunoaffinity Column / Fluorometry			
Description		Unit	Company
1	Aflatoxin (Total)	Sample	1,800
Resistant Starch			
Description		Unit	Company
1	Resistant Starch (%RS)	Sample	2,500
Amylose			
Description		Unit	Company
1	Amylose Content (%AC)	Sample	1,200
Personal Protection Equipment Testing (PPE Testing)			
Description		Unit	Company
1	Determination of a population of microorganisms on products (Cleanliness –microbial- EN ISO 11737-1)	Sample	3,500
2	Resistance to wet bacterial penetration (EN ISO 22610)	Sample	8,000
3	Resistance to dry bacterial penetration (EN ISO 22612)	Sample	16,000
Microbial contamination (Cannabis)			
Description		Unit	Company
1	Microbial contamination	Sample	1,500
Growth analysis			
Description		Unit	Company
1	Growth analysis	Sample	6,000

Microwave Digestion ยี่ห้อ Milestone รุ่น UltraWAVE			
Description		Unit	Company
1	Microwave Digestion UltraWave for ICP-AES	Sample	1,200
2	Microwave Digestion UltraWave for ICP-MS	Sample	1,900
Surface Analyzer (Physisorption and Chemisorption)			
Description		Unit	Company
1	Physisorption-BET (Surface area)	Sample	4,000
2	Physisorption-Isotherm (Surface area and porosity meter analyzer)	hour	800
3	Chemisorption-Static volumetric chemisorption	Sample	4,200
4	Chemisorption-Temperature program (Oxidation/Reduction/Desorption)	Sample	4,200
Nanosizer (Dynamic light scattering : DLS)			
Description		Unit	Company
1	Particle size analysis (For water dispersion sample)	Sample	1,200
2	Particle size analysis (For solvents and oil dispersion sample)	hour	2,000
3	Zeta potential (For water dispersion sample)	Sample	1,600
4	Zeta potential (For solvents and oil dispersion sample)	Sample	2,400
Electron Probe Microscope Analyzer (EPMA)			
Description		Unit	Company
1	Operation time	hour	6,600
2	Imaging	Pic.	100
3	Elemental analysis-Line scan/Point scan/Area scan	Pic.	500
4	Elemental analysis-Mapping	Pic.	1,000

**Remark

- Test Report 1,000,- ฿

Contact NCTC

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