

Price List 2023

Chemical analysis:

- carbon, low alloy, and stainless steels (no preparation required) 17 elements reported (C, Mn, P, S, Si, Ni, Mo, Cr, Cu, Al, V, Ti, Nb, B, Co, W, Sn)	100.00
- additional elements by OES each	30.00
- aluminum, nickel, copper, and cobalt alloys (elements reported as required per specification where possible)	120.00
- Carbon by LECO, millings	90.00
- sample preparation: cutting, melting ect.	50.00
- nitrogen or oxygen by LECO	125.00
- hydrogen by LECO Titanium	225.00
- hydrogen by LECO Fe-base	125.00
- “wet” analysis (DCP)	POR

Physical testing:

- tensile test carbon and low alloy (less than 20 min. cutting time)	80.00
- tensile test super alloys (Fe, Ni-Co base, Duplex)	130.00
- Charpy’s impact test (low alloy)	115.00
- sub size charge (less than 10 x 10 mm)	35.00
- Charpy’s impact test – austenitic (low to non-magnetic)	155.00
- guided bend test (each) (low alloy and carbon steels)	70.00
- guided bend test (each) (high alloy, non-magnetic)	95.00
- specimens etch for weld line/HAZ	40.00
- Hardness Testing Brinell/Rockwell (50.00 minimum per report)	35.00
- 4-Quad Hardness Testing	220.00
- 1-Quad Hardness Testing	115.00
- sample preparation	105.00
- Proof Load < 3/4”	80.00
- Proof Load 3/4” to 1 1/4”	105.00
- Proof Load >1 1/4”	135.00

Metallurgical testing:

- microexamination (grain size, microstructure ect.)	125.00
- grain size E112 by A 3.2.1.4 Oxidation procedure (martensitic steels)	150.00
- microhardness sample preparation (minimum charge, check for larger pieces)	100.00
- each indentation Vickers or Knoop	35.00
- E562 manual point count	175.00
- Austenite Spacing	175.00
- E45 micro cleanness Method A, B or C (includes preparation)	160.00
- E45 micro cleanness Method D (includes preparation)	210.00
- ASTM E1268 Banding Calculation	175.00
- ASTM A262	
- practice A (oxalic acid test)	125.00
- practice B (ferric sulfite - sulfuric acid test - 120 h)	285.00
- practice C (nitric acid test - 240 h) also known as Huey test	375.00
- practice D (nitric - hydrofluoric acid test - 4 h)	485.00
- practice E (copper - copper sulfite - sulfuric acid test - 24 h)	160.00
- sensitizing HT at 1250°F-1 hour (low carbon and stabilized grades)	80.00
- ASTM G48A (ferric chloride solution 22-50°C - 24h)	110.00
- ASTM A923C (ferric chloride solution 22-50°C - 24h)	110.00
- ASTM G28A:	
- 24 hours ferric sulfate - sulfuric acid boiling solution test (Hastelloy C, C276, Inc. 600)	240.00
- 120 hours ferric sulfate - sulfuric acid boiling solution test (other Ni-alloys)	415.00
-ASTM G28 B: 24 hr Acid-oxidation test.	315.00
-ASTM B154 Mercurous Nitrite test	315.00
-Macro etch	100.00
-Ferroxyl Testing	185.00

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On site testing:

- PMI by XRF @**475.00 minimum first hour/150.00 after + travel 50.00/hour**
- PMI by LIBS @**675.00 minimum first hour/150.00 after + travel 50.00/hour**
- hardness test **15.00 per test (50.00 minimum)**
- clerical for PMI reporting @ **25.00 per hour**
- Liquid Penetrant Testing @ **150.00 callout 75.00 per hour**

Other services:

- Heat Treatment **25.00/hour in furnace time+50.00 set up charge**
- SEM analysis **\$450.00 minimum** (first hour, second hour \$350.00)