

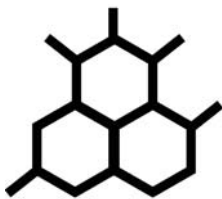
# How to Provide Samples for Chemical Analysis

Save yourself time and money. Ensure that test results are as accurate as possible.

It all starts with the samples submitted for analysis. Here are tips to help your order go smoothly:

- Provide as much information as possible about the sample.
- Supply an adequate sample size.

## SAMPLE COMPOSITION



When we are asked to analyze a single component of a metal alloy, other elements in the sample may interfere.

We can take precautions to prevent interference when we know the approximate composition in advance.

## STANDARDS & SPECIFICATIONS



Most testing is performed to determine if a sample conforms to a standard or specification, such as ASTM, ASME or MIL.

Some standards refer to more than one alloy or grade, so it is helpful to know which applies before we begin testing.

## SAMPLE SIZE

To ensure that we have an adequate sample size to perform the required testing, we provide the following guidelines:

SHEET (Note 1)	PLATE (Note 1)	SHAPES (Note 2)	ROUND BAR	PIPE	TUBING	WIRE
< 0.05" T = 5 Grams ≥ 0.05" T x 2" x 2"	2" x 2"	< 0.05" T = 5 Grams ≥ 0.05" T x 2" x 2"	< 1/4" D = 5 Grams ≥ 1/4" D x 2" L	2" L	< 0.05" Wall = 5 Grams ≥ 0.05" Wall x 2" L	5 Grams

**Notes:** Sample sizes above are based on the material being saw cut; If gas cut, please call for sizes.

(1) Grain/rolling direction is required when submitting sheet or plate for testing. Always mark grain/rolling direction with an arrow.

(2) Shapes refer to beam, angle, channel, and T's.

### AES ANALYSIS

- Solid samples - 1/2" thick and 2" x 2" square

### ICP ANALYSIS

- Powders - Minimum weight of 20 grams but size can vary
- Chips / Samples too small for AES - Minimum weight of 5 grams

### INERT GAS FUSION

- Hydrogen - Minimum weight of 2 grams
- Nitrogen / Oxygen - Minimum of 1½ grams

### COMBUSTION METHOD

- Carbon / Sulfur - Minimum of 2 grams



Sizes above are general guidelines and exceptions may apply.