

Certificate of Analysis

Standard Reference Material 1105

Free-Cutting Brass

	<i>Percent</i>
Copper -----	63.7
Zinc -----	34.0
Lead -----	2.0
Tin -----	0.21
Iron -----	.044
Nickel -----	.043
Phosphorus -----	.003

Sample Condition: The sample is supplied in the form of disks 1¼ in. in diameter and ¼ in. thick. The material was prepared by hot-extrusion of cast material, since suitable wrought material could not be prepared by forging. Microscopic examination revealed mixed grain size with some nonworked areas; the samples are not entirely metallurgically uniform.

Homogeneity: Lead was found to be segregated in the alloy, with deviations of ± 0.1 percent from the average value. Because of the nonuniform metallurgical condition, deviations somewhat larger than normal may be encountered in the intended use. This sample will only be issued with a provisional certificate.

Intended Use: The sample is one of three compositions in a graded series for free-cutting brass in wrought and cast form for application in optical emission and x-ray spectroscopic analysis.