

Certificate of Analysis

STEEL SETTING-UP REFERENCE MATERIALS

analysis listed as percent by weight

| B. S. No. | 213 | 214 | B. S. No. |
|------------------|------------|------------|------------------|
| C | 0.152 | 0.10 | C |
| Mn | 0.68 | 0.65 | Mn |
| P | 0.015 | 0.019 | P |
| S | 0.005 | 0.012 | S |
| Si | 0.49 | 0.34 | Si |
| Cu | 0.059 | 0.10 | Cu |
| Ni | 2.68 | 3.70 | Ni |
| Cr | 0.37 | 0.21 | Cr |
| Mo | (0.008) | 0.02 | Mo |
| Sn | (0.002) | (0.005) | Sn |
| Al | (0.04) | 0.025 | Al |
| V | (0.004) | (0.004) | V |
| Nb | 0.013 | (0.007) | Nb |
| Ti | (0.002) | (0.002) | Ti |
| W | (0.006) | <0.008 | W |

These setting-up materials have been cast on a copper chill plate to produce a rapid unidirectional solidification. The portion of the disk extending upward 10 mm from the larger diameter surface has the best chill structure. Two laboratories provided analytical data for these materials. The data in parentheses are the results of only one laboratory. The Reference Materials are intended for use as setting-up materials for optical emission and x-ray spectrometers.

Certificate No. 213-214-CC110785

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