



## Advanced Engineering Materials

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# Material Certification Sheet

|               |                                |
|---------------|--------------------------------|
| Product Name: | Scandium (Sc) Metal            |
| Purity:       | TREM >99.94%, Sc/TREM >99.999% |
| AEM Part No.: | AEMST-Sc                       |
| Lot Number:   | AEM2017120201                  |
| Date:         | 2017/12/2                      |

Analysis Type: ICP-MS, ug/g

| RE Impurities (<) |          | Non-RE Impurities (<) |       |
|-------------------|----------|-----------------------|-------|
| La                | 0.20     | Mn                    | 17.0  |
| Ce                | 0.31     | Fe                    | 197.0 |
| Pr                | 0.21     | Si                    | 30.0  |
| Nd                | 0.11     | Ca                    | 13.0  |
| Sm                | 0.18     | Mg                    | 9.0   |
| Eu                | 0.35     | Cu                    | 48.0  |
| Gd                | 0.11     | Ni                    | 9.1   |
| Tb                | 0.30     | Al                    | 180.0 |
| Dy                | 5.87     | Zr                    | 1.2   |
| Ho                | 0.27     | Ti                    | 1.1   |
| Er                | 0.41     | Mo                    | 1.3   |
| Tm                | 0.21     | Ta                    | 1.5   |
| Yb                | 0.10     | W                     | 1.5   |
| Lu                | 0.10     |                       |       |
| Y                 | 0.20     |                       |       |
| TREM              | >99.94%  |                       |       |
| Sc/TREM           | >99.999% |                       |       |

RE: rare earth  
TREM: total rare earth metals

By: \_\_\_\_\_

