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Standard Guide for Metallographic Preparation of Thermal Sprayed Coatings¹

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1. Scope

1.1 This guide covers recommendations for sectioning, cleaning, mounting, grinding, and polishing to reveal the microstructural features of thermal sprayed coatings (TSCs) and the substrates to which they are applied when examined microscopically. Because of the diversity of available equipment, the wide variety of coating and substrate combinations, and the sensitivity of these specimens to preparation technique, the existence of a series of recommended methods for metallographic preparation of thermal sprayed coating specimens is helpful. Adherence to this guide will provide practitioners with consistent and reproducible results. Additional information concerning standard practices for metallographic preparation can be found in Practice E 3.

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

¹ This guide is under the jurisdiction of ASTM Committee E-4 E04 on Metallography and is the direct responsibility of Subcommittee E04.01 on Sampling, Specimen Preparation, and Photography.

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