



SURFACE VEHICLE STANDARD

J2441™

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Shot Peening

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Documents

Standard Sharing Hub

1. SCOPE

1.1 Form

This SAE Standard covers the engineering requirements for peening surfaces of parts by impingement of metallic shot, glass beads, or ceramic shot.

1.2 Application

To induce residual compressive stress in surface layers of parts, thereby increasing fatigue strength and resistance to stress-corrosion cracking.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J441	Cut Wire Shot
SAE J442	Test Strip, Holder, and Gage for Shot Peening
SAE J443	Procedures for Using Standard Shot Peening Almen Strip
SAE J444	Cast Shot and Grit Size Specifications for Peening and Cleaning
SAE J445	Metallic Shot and Grit Mechanical Testing
SAE J827	High-Carbon Cast-Steel Shot
SAE J1173	Size Classification and Characteristics of Glass Beads for Peening
SAE J1830	Size Classification and Characteristics of Ceramic Shot for Peening
SAE J2175	Specifications for Low Carbon Cast Steel Shot
SAE J2277	Shot Peening Coverage Determination

2.1.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org

ASTM E 18	Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials
ASTM E 11	Standard Specification for Wire Cloth and Sieves for Testing Purposes

3. TECHNICAL REQUIREMENTS

3.1 Material

3.1.1 Media

As received peening media shall conform to the requirements of SAE J441, SAE J444, SAE J827, SAE J2175, SAE J1173, and SAE J1830.

- 3.1.1.1 Metallic shot may be used for peening to intensities requiring use of “N,” “A,” and “C” Almen test strips.
- 3.1.1.2 Glass beads may be used for peening to intensities requiring use of the “N” test strip.
- 3.1.1.3 Ceramic shot may be used for peening to both “A” and “N” intensities.