



<b>AEROSPACE RECOMMENDED PRACTICE</b>	<b>ARP3050™</b>	<b>REV. A</b>
	Issued 2007-02 Cancelled 2021-09	
Superseded by AS6837		
Suitable Test Sizes for O-Ring Specifications		

#### RATIONALE

This document is being cancelled and replaced by AS6837, which has already been published. This cancellation was unanimously approved by vote at CE Spring 2021 Meeting on May 12, 2021. The Aerospace Council has also approved this cancellation.

#### CANCELLATION NOTICE

This Technical Report has been declared "CANCELLED" as of September, 2021 and has been superseded by AS6837. By this action, this document will remain listed in the respective index, if applicable. Cancelled Technical Reports are available from SAE.

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## 1. SCOPE

### 1.1 Purpose

There are many tests that have been developed to characterize rubber O-rings. Many of these tests are independent of the size of the O-ring being tested. However, there are some tests, specifically, stress/strain properties, that are a function of the O-ring's size. The purpose of this report is to provide guidelines for specifying O-rings that would be considered "suitable for testing" when writing O-ring material specifications.

### 1.2 Background

The vast majority of O-ring specifications written to date do not specify a specific O-ring size as the appropriate test specimen. Typically, phrases like "the finished part," "if of suitable size," or "the end item" are used when conformance testing is referred to. Currently, this situation is handled by the O-ring manufacturer on a case-by-case basis through discussions with the customer. The reason why this is problematic is that physical properties can change as the O-ring size being tested changes. It should be noted that some polymer families are more sensitive to this phenomenon than others.

## 2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

### 2.1 SAE Publications

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AS568B      Aerospace Standard for O-rings