

ENGINEERING MATERIAL SPECIFICATION

Material Name	Specification Number
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CERAMIC, MONOLITH

WSE-M96B63-BA

1. SCOPE

The material defined by this specification is a porous ceramic.

2. APPLICATION

This specification was released originally for materials used in the substrate in the manufacture of catalytic converters.

This specification replaces and supersedes ESE-M96B63-BA. When ESE-M96B63-BA is shown on other documents, the requirements of this specification apply.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 ORIGINAL PHYSICAL PROPERTIES

CONSTRUCTION B

3.2.1 Thermal Expansion Coeff., max
(ASTM C 372)

1.25×10^{-6} in/in/ °C

Measure as average from 40 to 800°C.

3.3 ORIGINAL CHEMICAL PROPERTIES

3.3.1 Chemical Composition

Al ₂ O ₃	35.4 ± 1.5
SiO ₂	49.7 ± 1.7
MgO	13.5 ± 1.1

Date	Action	Revisions
2002 08 16	Revised	Updated and renumbered
1985 03 25	CE3P-RD863100-E148	J.C. Webster
1973 09 11	VD3-10	Released

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3.3.2 Major Crystalline Phases %
X-ray diffraction (list test method)

Cordierite, min	90
Mullite, max	5
Al ₂ O ₃ , max	5.0

3.3.3 Other Elements %, max

Test Method: ASTM C 573 or alternate procedures giving equivalent precision such as emissions spectrographic fusion techniques.

Fe ₂ O ₃	1.0
ZrO ₂	1.0
TiO ₂	1.0
CaO	0.8
PbO	0.1
BaO	0.1
P ₂ O ₅	0.2
K ₂ O + Na ₂ O	0.5
Li ₂ O	0.1
B ₂ O ₃	0.1
V ₂ O ₅	0.1
Cr ₂ O ₃	0.1
CuO	0.1
MnO	0.1
NiO	0.1
SrO	0.1