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Portables and Power Feeder Cables for Use in Mines and Similar Applications

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FOREWORD

This Standards Publication for Mining Cable was developed by the Insulated Cable Engineers Association, Incorporated (ICEA) and was approved by the National Electrical Manufacturers Association (NEMA).

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Requests for interpretation of this Standard must be submitted in writing to:

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Carrollton, GA 30112

An official interpretation will be made by the Association.

Suggestions for improvement gained in the use of this publication will be welcomed by the Association.

Working Group Members:

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David L. Fox (deceased)
Mark A. Fuller
L. Drayton Land
Marcel Levitre
Frank LeGase

IN MEMORY

The rewriting of this standard was initiated and diligently pursued by Mr. David Fox of AmerCable Inc. Through his efforts and countless hours invested, publishing of this work was made possible. We would like to both remember David and thank David’s family, wife Lis and daughter Stephanie, for the valuable contribution he made to our industry and in the development of this specification.
Section 1
GENERAL

1.1 SCOPE

These standards apply to materials, construction, and testing of insulated cables used for the utilization of electrical energy in surface and underground mines and similar applications. Included are portable cables for use in mining machines, dredges, shovels and similar equipment, and mine power cables for use as connections between units of mine distribution systems. The cables are of the following types:

PORTABLE CABLES 2,000 VOLTS OR LESS

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>W without grounding conductors</td>
</tr>
<tr>
<td>G</td>
<td>G with grounding conductors</td>
</tr>
<tr>
<td>G-GC</td>
<td>G-GC with grounding conductors and one ground-check conductor</td>
</tr>
<tr>
<td>G-CGC</td>
<td>G-CGC with grounding conductors and one ground-check conductor in center</td>
</tr>
<tr>
<td>PG</td>
<td>PG with single grounding conductor</td>
</tr>
<tr>
<td>PCG</td>
<td>PCG with single grounding conductor and two control conductors</td>
</tr>
<tr>
<td>SHC-GC</td>
<td>SHC-GC multiconductor with grounding conductors, one ground check conductor and overall shield</td>
</tr>
<tr>
<td>SHD-PCG</td>
<td>SHD-PCG multiconductor with individually shielded power conductors, center grounding conductor, and one or more control conductors.</td>
</tr>
<tr>
<td>SHD Flat</td>
<td>SHD Flat multiconductor with individually shielded power conductors, and grounding conductors covered with a conducting extrusion layer.</td>
</tr>
</tbody>
</table>

PORTABLE CABLES 2,001–5,000 VOLTS (100% INSULATION LEVEL)

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>G with grounding conductors</td>
</tr>
<tr>
<td>SHD-PCG</td>
<td>SHD-PCG multiconductor with individually shielded power conductors, center grounding conductor, and one or more control conductors.</td>
</tr>
</tbody>
</table>

PORTABLE CABLES 0–25,000 VOLTS (100% INSULATION LEVEL)

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH</td>
<td>SH shielded single conductor</td>
</tr>
<tr>
<td>SHD</td>
<td>SHD with individually shielded power conductors and grounding conductors</td>
</tr>
<tr>
<td>SHD-GC</td>
<td>SHD-GC with individually shielded power conductors, grounding conductors, and one ground-check conductor</td>
</tr>
<tr>
<td>SHD-CGC</td>
<td>SHD-CGC with individually shielded power conductors, grounding conductors, and one ground-check conductor in center</td>
</tr>
</tbody>
</table>

MINE POWER 2,001–25,000 VOLTS (100% AND 133% INSULATION LEVEL)

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP</td>
<td>MP with individually shielded power conductors and grounding conductors</td>
</tr>
<tr>
<td>MP-GC</td>
<td>MP-GC with individually shielded power conductors, grounding conductor, and one ground-check conductor</td>
</tr>
</tbody>
</table>