

INTERNATIONAL TRUCK and ENGINE CORPORATION		
CEMS (CORPORATE ENGINEERING MATERIAL SPECIFICATION)		NUMBER: CEMS G-15
TITLE: Plastic Coatings – Powder System		CURRENT ISSUE DATE: April 2002
WRITTEN/REVIEWED BY: Materials Engineering	APPROVED BY: Materials Engineering	SUPERSEDES ISSUE OF: July 1999
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<i>This specification may involve hazardous materials, equipment, and procedures. This specification does not purport to address all of the safety issues associated with its use. The user is responsible to consult appropriate safety and health practices and to determine the applicability of regulatory limits prior to use.</i>		
Change Notice: Editorial Changes		

1.0 SCOPE

This specification covers the Corporation's requirements for plastic coatings applied by a fluidized bed coating technique to provide improved bearing properties, corrosion resistance and other properties.

2.0 INTRODUCTION

The powder coat system provides another means to provide a smooth, nonporous coating on either simple or complex parts. Relatively heavy coatings providing a comfortable "feel" on handles and knobs can be provided.

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4.0 REFERENCE DOCUMENTS

Unless otherwise specified, the latest issue of all referenced standards shall apply. The following standards, specifications and regulations are referenced in this specification.

Quality System Standard QS-9000 (ISO 9001)
INTERNATIONAL IQR Quality Standard
INTERNATIONAL Manufacturing Standard D-13
CFR Title 29, Part 1910

5.0 CLASSIFICATION

Coatings are classified by material, thickness, and adhesion.

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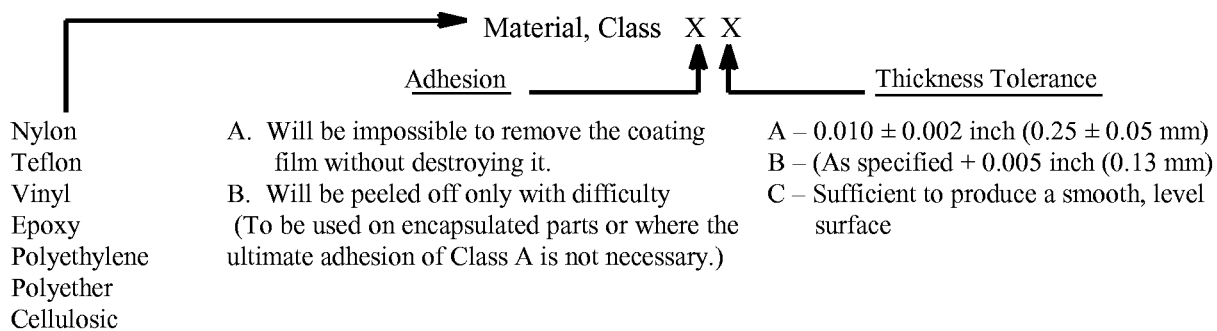
5.1 Obsolete Classes/Compositions

Specially prepared materials previously designated as IH No. 1 & No. 2 are obsolete. They have been replaced by Nylon, Class AA.

6.0 GENERAL REQUIREMENTS

Coatings provided shall meet thickness requirements described herein unless otherwise specified on the drawing and/or purchase order. When required color shall be specified on the drawing.

6.1 The applied coating will be specified by the material and by an adhesion and thickness tolerance class as shown:



Example: Nylon, Class BC

6.2 Since the properties of plastic coatings are difficult to determine on finished parts, engineering testing should determine which plastic coating to specify.

7.0 QUALITY

The coated areas will be uniformly smooth with no indication of unfused particles, gas bubbles or blisters and free from pinholes and other detrimental imperfections. The location of the suspending device will be such as not to interfere with uniform coating of the critical surfaces.

The process and sources for all equipment and materials will be approved by Materials Engineering, TDTC, 2911 Meyer Road, P. O. Box 1109, Fort Wayne, Indiana 46801-1109.

7.1 Qualification

Production material may be furnished under this specification only after formal qualification. When requested by the International Purchasing Department, the supplier will furnish samples to Materials Engineering at TDTC, Fort Wayne for engineering qualification which includes approval by the controlling engineering departments, including performance tests as required.

8.0 METHODS OF TEST

8.1 Adhesion

With a sharp knife, attempt to peel off the plastic coating.

8.2 Coating Thickness

Measure with a "Magna-Gage", or similar device, if possible. Otherwise, remove a section of the coating and determine the thickness by the difference of coated and uncoated areas.

9.0 SOURCE APPROVAL AND QUALITY CONTROL

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