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Canadian General
Standards Board Office des normes
générales du Canada

Series 1
Série des 1

WITHDRAWAL

October 2011

Selected standards in the series Paints, pigments and related products

These CGSB standards and National Standards of Canada are hereby withdrawn due to limited use and support for their revision.

The Standards Council of Canada requires that accredited Standards Development Organizations, such as the CGSB, regularly review a consensus Standard to determine whether to re-approve, revise or withdraw. The review cycle is normally five years from the publication date of the latest edition of the Standard.

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RETRAIT

Octobre 2011

Sélection de normes de la série Peintures, pigments et produits connexes

Ces normes de l'ONGC et ces Normes nationales du Canada sont retirées par le présent avis en raison de leur utilisation limitée et du manque de support pour leur révision.

Le Conseil canadien des normes exige que les organismes accrédités d'élaboration de normes, tel que l'ONGC, effectue régulièrement un examen des normes consensuelles afin de déterminer s'il y a lieu d'en renouveler l'approbation, de les réviser ou de les retirer. Le cycle d'examen d'une norme est généralement de cinq ans à partir de la date de publication de la dernière édition de celle-ci.

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CAN/CGSB-1.5-M91

Low Flash Petroleum Spirits Thinner
(ICS 87.040)

CAN/CGSB-1.28-98

Exterior Alkyd House Paint (ICS 87.040)

CAN/CGSB-1.36-97

General Purpose Interior Alkyd Varnish
(ICS 87.040)

CAN/CGSB-1.38-2000

Interior Enamel Undercoater (ICS 87.040)

CAN/CGSB-1.40-97

Anticorrosive Structural Steel Alkyd Primer
(ICS 87.040)

CAN/CGSB-1.57-2003

Interior Alkyd Semigloss Enamel
(ICS 87.040)

CAN/CGSB-1.59-97

Alkyd Exterior Gloss Enamel (ICS 87.040)

CAN/CGSB-1.60-97

Interior Alkyd Gloss Enamel (ICS 87.040)

cette information. Ces normes doivent être consultées à des fins archivistiques seulement puisque leur contenu a été révoqué à la date du présent avis de retrait.

Des copies archivées des normes retirées peuvent être obtenues à des fins historiques ou archivistiques auprès du Centre des ventes de l'ONGC. Il suffit d'en faire la demande par téléphone au 819-956-0425 ou 1-800-665-2472, par télécopieur au 819-956-5740, par Internet à : www.tpsgc-pwgsc.gc.ca/ongc-cgsb/, par courriel à ncr.CGSB-ONGC@tpsgc-pwgsc.gc.ca, ou par courrier adressé au Centre des ventes, Office des normes générales du Canada, 11, rue Laurier, Gatineau, Canada K1A 1G6.

CAN/CGSB-1.5-M91

Diluant, essence minérale à faible point d'éclair (ICS 87.040)

CAN/CGSB-1.28-98

Peinture aux résines alkydes d'extérieur pour bâtiments (ICS 87.040)

CAN/CGSB-1.36-97

Vernis d'intérieur aux résines alkydes d'usage général (ICS 87.040)

CAN/CGSB-1.38-2000

Peinture-émail d'intérieur, pour couche de fond (ICS 87.040)

CAN/CGSB-1.40-97

Peinture pour couche primaire anticorrosion, aux résines alkydes, pour acier de construction (ICS 87.040)

CAN/CGSB-1.57-2003

Peinture-émail, d'intérieur, semi-brillante, aux résines alkydes (ICS 87.040)

CAN/CGSB-1.59-97

Peinture-émail, d'extérieur, brillante, aux résines alkydes (ICS 87.040)

CAN/CGSB-1.60-97

Peinture-émail brillante d'intérieur aux résines alkydes (ICS 87.040)

CAN/CGSB-1.61-2004

Exterior and Interior Marine Alkyd Enamel
(ICS 87.040)

CAN/CGSB-1.69-98

Aluminum Paint (ICS 87.040)

1-GP-71 (Oct 1983)

Methods of Testing Paints and Pigments
(ICS 87.040)

1-GP-71

Methods of Testing Paints and Pigments

No. 5-96

Drying Times of Paints and Related
Coatings (ICS 87.040)

No. 38-96

Blushing Resistance of Lacquer
Finishes (ICS 87.040)

No. 73-96

Beilstein Test for Chlorinated Solvents
(ICS 87.040)

CAN/CGSB-1.73-97

Exterior and Interior Enamel for Floors
(ICS 87.040)

CAN/CGSB-1.74-2001

Alkyd Traffic Paint (ICS 87.040)

CAN/CGSB-1.76-2000

Interior and Exterior Heat-Resistant Enamel
(ICS 87.040)

CAN/CGSB-1.81-M90

Air Drying and Baking Alkyd Primer for
Vehicles and Equipment (ICS 87.040)

CAN/CGSB-1.84-M91

Alkyd Primer for Hardwood (ICS 87.040)

CAN/CGSB-1.61-2004

Peinture-émail aux résines alkydes,
d'extérieur et d'intérieur, marine
(ICS 87.040)

CAN/CGSB-1.69-98

Peinture à l'aluminium (ICS 87.040)

1-GP-71 (oct. 1983)

Méthodes d'essai des peintures et pigments
(ICS 87.040)

1-GP-71

Méthodes d'essai des peintures et pigments

N° 5-96

Durée de séchage des peintures et
revêtements apparentés (ICS 87.040)

N° 38-96

Résistance à l'opalescence des
produits-laque de finition (ICS 87.040)

N° 73-96

Détermination de la présence de
solvants chlorés par l'essai de Beilstein
(ICS 87.040)

CAN/CGSB-1.73-97

Peinture-émail d'extérieur et d'intérieur,
pour sols (ICS 87.040)

CAN/CGSB-1.74-2001

Peinture alkyde de démarcation routière
(ICS 87.040)

CAN/CGSB-1.76-2000

Peinture-émail résistant à la chaleur,
d'intérieur et d'extérieur (ICS 87.040)

CAN/CGSB-1.81-M90

Peinture pour couche primaire aux résines
alkydes, séchant à l'air ambiant et au four,
pour véhicules automobiles et équipement
(ICS 87.040)

CAN/CGSB-1.84-M91

Peinture d'impression aux résines alkydes,
pour bois dur (ICS 87.040)

CAN/CGSB-1.88-92

Gloss Alkyd Enamel, Air Drying and Baking
(ICS 87.040)

CAN/CGSB-1.100-99

Interior Flat Latex Paint (ICS 87.040)

CAN/CGSB-1.104-M91

Semigloss Alkyd Air Drying and Baking
Enamel (ICS 87.040)

CAN/CGSB-1.105-M91

Quick-Drying Primer (ICS 87.040)

CAN/CGSB-1.114-M91

Quick-Drying Flat Enamel (ICS 87.040)

CAN/CGSB-1.118-95

Interior Flat Alkyd Finish (ICS 87.040)

CAN/CGSB-1.119-2000

Interior Latex Primer-Sealer (ICS 87.040)

CAN/CGSB-1.122-99

Anticorrosive Vinyl Primer (ICS 87.040)

CAN/CGSB-1.132-M90

Zinc Chromate Primer, Low Moisture
Sensitivity (ICS 87.040)

CAN/CGSB-1.135-99

Flat Alkyd Enamel for Equipment
(ICS 87.040)

CAN/CGSB-1.138-97

Exterior Latex Flat Paint (ICS 87.040)

CAN/CGSB-1.143-98

Silicone Alkyd Heat-Resistant Aluminum
Enamel (ICS 87.040)

CAN/CGSB-1.88-92

Peinture-émail brillante aux résines alkydes,
séchant à l'air ambiant et au four
(ICS 87.040)

CAN/CGSB-1.100-99

Peinture-émulsion mate d'intérieur
(ICS 87.040)

CAN/CGSB-1.104-M91

Peinture-émail semi-brillante aux résines
alkydes séchant à l'air ambiant et au four
(ICS 87.040)

CAN/CGSB-1.105-M91

Peinture pour couche primaire à séchage
rapide (ICS 87.040)

CAN/CGSB-1.114-M91

Peinture-émail mate à séchage rapide
(ICS 87.040)

CAN/CGSB-1.118-95

Peinture de finition mate d'intérieur aux
résines alkydes (ICS 87.040)

CAN/CGSB-1.119-2000

Peinture-émulsion d'impression d'intérieur
(ICS 87.040)

CAN/CGSB-1.122-99

Peinture pour couche primaire, aux résines
vinyliques, anticorrosion (ICS 87.040)

CAN/CGSB-1.132-M90

Peinture pour couche primaire, au chromate
de zinc, à faible sensibilité à l'humidité
(ICS 87.040)

CAN/CGSB-1.135-99

Peinture-émail mate aux résines alkydes
pour équipement (ICS 87.040)

CAN/CGSB-1.138-97

Peinture-émulsion (latex) mate, d'extérieur
(ICS 87.040)

CAN/CGSB-1.143-98

Peinture-émail aux résines silicones-
alkydes résistante à la chaleur (ICS 87.040)

CAN/CGSB-1.145-97

Solvent-Based Pigmented Stain
(ICS 87.040)

CAN/CGSB-1.146-99

Cold Curing, Gloss Epoxy Coating
(ICS 87.040)

CAN/CGSB-1.150-M91

Clear Lacquer for Wood Furniture
(ICS 87.040)

CAN/CGSB-1.153-2000

High-Build, Gloss Epoxy Coating
(ICS 87.040)

CAN/CGSB-1.154-M89

Latex Type Paint for Concrete Floors
(ICS 87.040)

CAN/CGSB-1.158-M89

Cellulose Nitrate Primer, Modified Alkyd
Type (ICS 87.040)

CAN/CGSB-1.159-92

Acrylic Cellulose Nitrate Gloss Lacquer
(ICS 87.040)

CAN/CGSB-1.160-93

Low Gloss Acrylic Cellulose Nitrate
Lacquer (ICS 87.040)

CAN/CGSB-1.162-2004

Emulsion Coating for Stucco and Masonry
(ICS 87.040)

CAN/CGSB-1.165-2004

Cold-Curing Epoxy Primer (ICS 87.040)

CAN/CGSB-1.171-98

Inorganic Zinc Coating (ICS 87.040)

CAN/CGSB-1.175-97

Polyurethane Interior Coating (ICS 87.040)

CAN/CGSB-1.145-97

Teinture pigmentée à base de solvant
(ICS 87.040)

CAN/CGSB-1.146-99

Revêtement aux résines époxydiques,
durcissant à froid, brillant (ICS 87.040)

CAN/CGSB-1.150-M91

Vernis-laque pour meubles en bois
(ICS 87.040)

CAN/CGSB-1.153-2000

Revêtement par peinture aux résines
époxydiques, à pouvoir garnissant élevé,
brillant (ICS 87.040)

CAN/CGSB-1.154-M89

Peinture-émulsion (latex) pour sols en béton
(ICS 87.040)

CAN/CGSB-1.158-M89

Peinture-laque pour couche primaire, au
nitrate de cellulose et aux résines alkydes
modifiées (ICS 87.040)

CAN/CGSB-1.159-92

Produit-laque brillant à la résine acrylique et
au nitrate de cellulose (ICS 87.040)

CAN/CGSB-1.160-93

Peinture-laque aux résines acryliques et au
nitrate de cellulose, peu brillante
(ICS 87.040)

CAN/CGSB-1.162-2004

Revêtement de type émulsion pour stuc et
maçonnerie (ICS 87.040)

CAN/CGSB-1.165-2004

Peinture pour couche primaire aux résines
époxydiques, durcissant à froid
(ICS 87.040)

CAN/CGSB-1.171-98

Enduit au zinc minéral (ICS 87.040)

CAN/CGSB-1.175-97

Revêtement de polyuréthane d'intérieur
(ICS 87.040)

CAN/CGSB-1.176-2000

Interior Clear Moisture-Curing Polyurethane Coating (ICS 87.040)

CAN/CGSB-1.177-M91

Two-Component Polyurethane Coating, Resistant to Chalking and Yellowing (ICS 87.040)

1-GP-180Ma (Feb 1996)

Coating, Polyurethane, Two-Package, General Purpose (ICS 87.040)

CAN/CGSB-1.181-99

Ready-Mixed Organic Zinc-Rich Coating (ICS 87.040)

CAN/CGSB-1.183-99

Zinc-Rich Epoxy Coating (ICS 87.040)

CAN/CGSB-1.184-98

Coal Tar-Epoxy Coating (ICS 87.040)

CAN/CGSB-1.188-2004

Emulsion Filler for Masonry Block (ICS 87.040)

CAN/CGSB-1.189-2000

Exterior Alkyd Primer for Wood (ICS 87.040)

CAN/CGSB-1.190-M90

Sanding Type Primer Surfacer (ICS 87.040)

1-GP-191M (Apr 1980)

Enamel, Automotive Refinishing, Fast Drying, Gloss (ICS 87.040)

1-GP-192Ma (Feb 1985)

Deck Coating, Nonslip, Epoxy (ICS 87.040)

CAN/CGSB-1.176-2000

Revêtement de polyuréthane, d'intérieur, durci à l'humidité, non pigmenté (ICS 87.040)

CAN/CGSB-1.177-M91

Revêtement de polyuréthane, à deux constituants séparés, non jaunissant et non farinant (ICS 87.040)

1-GP-180Ma (févr. 1996)

Revêtement de polyuréthane, à deux constituants séparés, pour utilisation générale (ICS 87.040)

CAN/CGSB-1.181-99

Enduit riche en zinc, organique et préparé (ICS 87.040)

CAN/CGSB-1.183-99

Enduit aux résines époxydiques, riche en zinc (ICS 87.040)

CAN/CGSB-1.184-98

Revêtement à base de goudron de houille-résines époxydiques (ICS 87.040)

CAN/CGSB-1.188-2004

Apprêt-émulsion pour blocs de maçonnerie (ICS 87.040)

CAN/CGSB-1.189-2000

Peinture d'impression, d'extérieur, aux résines alkydes, pour le bois (ICS 87.040)

CAN/CGSB-1.190-M90

Peinture pour couche primaire surfaçante de type ponçable (ICS 87.040)

1-GP-191M (avr. 1980)

Peinture-émail brillante, à séchage rapide, pour le repeinture des carrosseries de véhicules automobiles (ICS 87.040)

1-GP-192Ma (févr. 1985)

Revêtement de pont, antidérapant, aux résines époxydiques (ICS 87.040)

CAN/CGSB-1.193-99

High-Build Epoxy Marine Coating
(ICS 87.040)

CAN/CGSB-1.195-99

Interior Latex Semigloss Paint (ICS 87.040)

CAN/CGSB-1.198-2001

Cementitious Primer for Galvanized
Surfaces (ICS 87.040)

1-GP-200Ma (Jan 1985)

Deck Coating, Nonslip, Polyurethane
(ICS 87.040)

CAN/CGSB-1.202-2003

Interior Alkyd Low Gloss Enamel
(ICS 87.040)

CAN/CGSB-1.203-2003

Exterior Latex Wood Primer (ICS 87.040)

CAN/CGSB-1.204-98

Exterior Latex Pigmented Stain
(ICS 87.040)

CAN/CGSB-1.205-2003

Sealer for Application to Asbestos-Fibre
Releasing Materials (ICS 87.040)

CAN/CGSB-1.207-98

Low-Temperature Curing Epoxy Coating
(ICS 87.040)

CAN/CGSB-1.208-99

Marine Interior Water-Borne Gloss Enamel
(ICS 87.040)

CAN/CGSB-1.209-2003

Interior Latex Low Gloss Paint (ICS 87.040)

CAN/CGSB-1.210-2003

Quick-Drying Alkyd Primer for Structural
Steel (ICS 87.040)

CAN/CGSB-1.193-99

Revêtement aux résines époxydiques, à
pouvoir garnissant élevé, marin
(ICS 87.040)

CAN/CGSB-1.195-99

Peinture-émulsion semi-brillante d'intérieur
(ICS 87.040)

CAN/CGSB-1.198-2001

Peinture primaire additionnée de ciment,
pour surfaces galvanisées (ICS 87.040)

1-GP-200Ma (janv. 1985)

Revêtement de pont, antidérapant, aux
résines polyuréthannes (ICS 87.040)

CAN/CGSB-1.202-2003

Peinture-émail d'intérieur, aux résines
alkydes, peu brillante (ICS 87.040)

CAN/CGSB-1.203-2003

Peinture-émulsion (latex) d'impression
extérieure, pour bois (ICS 87.040)

CAN/CGSB-1.204-98

Teinture-émulsion pigmentée pour extérieur
(ICS 87.040)

CAN/CGSB-1.205-2003

Peinture d'obturation pour matériaux
renfermant des fibres d'amiante
(ICS 87.040)

CAN/CGSB-1.207-98

Revêtement aux résines époxydiques
durcissant à basse température
(ICS 87.040)

CAN/CGSB-1.208-99

Peinture-émail brillante en suspension
aqueuse, marine, d'intérieur (ICS 87.040)

CAN/CGSB-1.209-2003

Peinture-émulsion d'intérieur peu brillante
(ICS 87.040)

CAN/CGSB-1.210-2003

Peinture primaire aux résines alkydes à
séchage rapide pour acier de charpente
(ICS 87.040)

CAN/CGSB-1.211-95

Coating Systems for Marine Floating Navigational Aids (Buoys) (ICS 87.040)

CAN/CGSB-1.212-2004

Heavy-Metal-Free Marine Primer for Steel and Light-Alloy Surfaces (ICS 87.040)

CAN/CGSB-1.213-2004

Etch Primer (Pretreatment Coating or Tie Coat) for Steel and Aluminum (ICS 87.040)

CAN/CGSB-1.214-2004

Heavy-Metal-Free, Water-Borne, Marine Primer for Steel and Light-Alloy Surfaces (ICS 87.040)

CAN/CGSB-1.215-96

Two-Package Epoxy Blockfiller (ICS 87.040)

CAN/CGSB-1.216-97

Exterior Water-Borne Gloss Enamel (ICS 87.040)

CAN/CGSB-1.219-2001

Lead and Chromate-Free Waterborne Traffic Paint (ICS 87.040)

CAN/CGSB-1.220-2001

Lead and Chromate-Free Alkyd Traffic Paint (ICS 87.040)

CAN/CGSB-1.223-2004

Heavy-Metal-Free, Water-Borne Wash Primer-Tie Coat (ICS 87.040)

CAN/CGSB-1.300-2000

Applied Coating System of Semigloss Baked Finish for Metal Office Furniture (ICS 87.040)

CAN/CGSB-1.500-75

Methods for Test for Toxic Trace Elements in Protective Coatings (ICS 87.040)

CAN/CGSB-1.211-95

Systèmes de revêtement pour aides à la navigation flottantes (bouées) (ICS 87.040)

CAN/CGSB-1.212-2004

Peinture primaire sans métal lourd, marine, pour surfaces en acier et en alliage léger (ICS 87.040)

CAN/CGSB-1.213-2004

Peinture primaire réactive (enduit de traitement préliminaire ou couche de liaison) pour l'acier et l'aluminium (ICS 87.040)

CAN/CGSB-1.214-2004

Peinture primaire, sans métal lourd, en suspension aqueuse, marine, pour surfaces en acier et en alliage léger (ICS 87.040)

CAN/CGSB-1.215-96

Apprêt pour blocs aux résines époxydiques en deux constituants (ICS 87.040)

CAN/CGSB-1.216-97

Peinture-émail brillante d'extérieur en suspension aqueuse (ICS 87.040)

CAN/CGSB-1.219-2001

Peinture à l'eau de démarcation routière sans plomb ni chromate (ICS 87.040)

CAN/CGSB-1.220-2001

Peinture alkyde de démarcation routière sans plomb ni chromate (ICS 87.040)

CAN/CGSB-1.223-2004

Peinture primaire réactive – Couche de liaison, sans métal lourd, en suspension aqueuse (ICS 87.040)

CAN/CGSB-1.300-2000

Système de revêtement de finition semi-brillant, cuit au four, pour meubles métalliques de bureau (ICS 87.040)

CAN/CGSB-1.500-75

Méthodes d'essai des éléments toxiques à l'état de trace dans les revêtements protecteurs (ICS 87.040)

CAN/CGSB-1.501-M89

Method for Permeance of Coated
Wallboard (ICS 87.040)

CAN/CGSB-1.501-M89

Méthode de détermination de la perméance
des panneaux muraux revêtus (ICS 87.040)

NATIONAL STANDARD OF CANADA

CAN/CGSB-1.160-93

Supersedes 1-GP-160a

Low Gloss Acrylic Cellulose Nitrate Lacquer



QUALITY

Withdrawn/Retired

Canadian General Standards Board

CGSB

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CGSB standards are subject to review and revision at any time, so as to ensure that they keep abreast of technological progress. Suggestions for their improvement, which are always welcome, should be brought to the notice of the standards committees concerned. Changes to standards are issued either as separate amendment sheets or in new editions of standards.

An up-to-date listing of CGSB standards, including details on latest issues and amendments, and ordering instructions, will be found in the CGSB Catalogue, which is published annually and is available without charge upon request.

Although the intended primary application of this standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

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The principal objectives of the Council are to foster and promote voluntary standardization as a means of advancing the national economy, benefiting the health, safety and welfare of the public, assisting and protecting the consumer, facilitating domestic and international trade, and furthering international co-operation in the field of standards.

A National Standard of Canada is a standard which has been approved by the Standards Council of Canada and one which reflects a reasonable agreement among the views of a number of capable individuals whose collective interests provide, to the greatest practicable extent, a balance of representation of producers, users, consumers and others with relevant interests, as may be appropriate to the subject in hand. It normally is a standard that is capable of making a significant and timely contribution to the national interest.

Approval of a standard as a National Standard of Canada indicates that a standard conforms to the criteria and procedures established by the Standards Council of Canada. Approval does not refer to the technical content of the standard; this remains the continuing responsibility of the accredited standards-writing organization.

Those who have a need to apply standards are encouraged to use National Standards of Canada whenever practicable. These standards are subject to periodic review; therefore, users are cautioned to obtain the latest edition from the organization preparing the standard.

The responsibility for approving National Standards of Canada rests with the:

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LOW GLOSS ACRYLIC CELLULOSE NITRATE LACQUER

This new edition supersedes CGSB standard 1-GP-160a, March 1972. Technical changes include the deletion of composition requirements and the appendix, the revision of the scope, related standards, detailed requirements for 60° gloss units, lubricating oil resistance, and behaviour toward undercoats and self-lifting.

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CANADIAN GENERAL STANDARDS BOARD

LOW GLOSS ACRYLIC CELLULOSE NITRATE LACQUER

1. SCOPE

- 1.1 This standard applies to an exterior coating of acrylic cellulose nitrate lacquer for protecting metal and composites such as carbon, fibre/epoxy fibreglass and aramid surfaces, particularly those of aircraft where resistance to di-ester lubricating oil is required.
- 1.2 The lacquer is designed primarily for application over a primer conforming to CAN/CGSB-1.158. However, it may be used over a primer conforming to MIL-P-23377. The lacquer shall not be applied directly over coatings conforming to CGSB standard 1-GP-121 or MIL-C-5541.
- 1.3 The testing and evaluation of a product against this standard may require the use of materials and/or equipment that could be hazardous. This document does not purport to address all the safety aspects associated with its use. Anyone using this standard has the responsibility to consult the appropriate authorities and to establish appropriate health and safety practices in conjunction with any existing applicable regulatory requirements prior to its use.

2. APPLICABLE PUBLICATIONS

- 2.1 The following publications are applicable to this standard:
- 2.1.1 Canadian General Standards Board (CGSB)
1-GP-12 — Standard Paint Colors, Part III
CAN/CGSB-1.22 — Aluminum Pigment Powder for Paint
CAN/CGSB-1.24 — Aluminum Pigment Paste for Paint
1-GP-71 — Methods of Testing Paints and Pigments
CAN/CGSB-1.158 — Cellulose Nitrate Primer, Modified Alkyd Type
CAN/CGSB-1.197 — Thinner for Epoxy Coatings
3.856 — Fluid, Deicing-Defrosting Concentrate for Aircraft Surfaces.
- 2.1.2 Department of Consumer and Corporate Affairs
Hazardous Products Act.
- 2.1.3 American Society for Testing and Materials (ASTM)
D 185 — Test Methods for Coarse Particles in Pigments, Pastes, and Paints
D 1210 — Test Method for Fineness of Dispersion of Pigment-Vehicle Systems.
- 2.1.4 U.S. Federal Test Method Standard No. 141.
- 2.2 Reference to the publications in par. 2.1.1, 2.1.3, 2.1.4 and other related publications is to the latest issues, unless otherwise specified by the authority applying this standard. The sources of all publications are shown in the Notes section.

3. GENERAL REQUIREMENTS

- 3.1 Lacquer complying with this standard shall consist of durable light-fast pigments, thoroughly dispersed in a vehicle composed of cellulose nitrate, copolymer of methyl methacrylate or other acrylic esters, and plasticizers in a suitable solvent mixture.

- 3.2 The lacquer shall be suitable for spray application when it is reduced with a thinner conforming to CAN/CGSB-1.197 in accordance with the manufacturer's instructions.
- 3.3 The lacquer shall be homogeneous and free from lumps and grit. It shall have good flowout properties and shall dry to a uniform appearance without streaking, running, sagging, orange peeling or exhibiting other defects. After 48 h the dried film shall have no residual odour.
- 3.4 The lacquer shall show no hard settling, thickening, curdling or undue loss in viscosity in the original unopened container when stored at temperatures not exceeding 40°C for two years from the date of shipment. At the end of this time the lacquer shall be capable of being readily mixed to a uniform condition by simple stirring, and shall meet the requirement for drying time (par. 4.1).

4. DETAILED REQUIREMENTS

Lacquer to this standard shall comply with the following detailed requirements when tested in accordance with the specified test method:

		Min.	Max.	Test Method	
				CGSB 1-GP-71	ASTM
4.1	Drying time, dry hard, minutes	—	40	5.1	
4.2	60° Gloss units			13.1	
	Flat colours	—	5		
	Semigloss colours	40	55		
4.3	Fineness of grind, Hegman	6	—	—	D 1210
4.4	Coarse particles retained on 45 µm (No. 325) sieve, % by mass	—	0.1	—	D 185
4.5	Non-volatile matter, % by mass except Black 512-301	40 32	— —	18.3	—

4.6 Colour

- 4.6.1 **Semigloss and Flat Colours** — The lacquer shall conform to all semigloss and flat colours of CGSB standard 1-GP-12 when tested in accordance with CGSB standard 1-GP-71, Method 12.9.
- 4.6.2 **Other Colours** — Aluminum coloured lacquer may be obtained by mixing 1 L of clear lacquer with 63 g of Class A powder conforming to CAN/CGSB-1.22 or 94 g of Class A paste conforming to CAN/CGSB-1.24.
- 4.7 **Hiding Power** — When applied at a maximum dry film thickness of 25 µm (CGSB 1-GP-71, Method 128.1) to a black and white checkered card in accordance with the specified method, the pigmented lacquer shall meet the following contrast ratio requirement when tested in accordance with CGSB standard 1-GP-71, Method 14.7. For other colours, the contrast ratio shall be as specified (par 7.1).

Colour	Minimum Contrast Ratio
Grey 501-302	0.99
101-327	0.99
Green 503-301	0.99
503-321	0.99
Black 512-301	1.00
White 513-201	0.90
513-301	0.90

- 4.8 **Gasoline Resistance** — The lacquer film applied over a primer conforming to CAN/CGSB-1.158 shall withstand 4 h immersion in 70:30 mixture of iso-octane: toluene without blistering, lifting or other film failure. Slight gumming above the liquid level shall not be cause for rejection. After 24 h recovery, the film shall show no softening and only slight discolouration or loss in gloss and the test fluid shall not be coloured by extraction of material from the film when tested in accordance with CGSB standard 1-GP-71, Method 107.5.
- 4.9 **Resistance to Deicing-Defrosting Fluid** — The lacquer film applied over a primer conforming to CAN/CGSB-1.158 shall withstand 4 h immersion in deicing defrosting fluid conforming to CGSB specification 3.856, at 23°C, without blistering, lifting or other film failure. Slight gumming above the liquid level shall not be cause for rejection. The test fluid shall not be coloured by extraction of matter from the film when tested in accordance with CGSB standard 1-GP-71, Method 108.3.
- 4.10 **Lubricating Oil Resistance** — The lacquer film applied over a primer conforming to CAN/CGSB-1.158 shall withstand 2 h immersion in synthetic oil (95% dioctylsebacate and 5% tricresyl phosphate) at 120°C without blistering, film softening or other signs of film failure. Slight gumming above the liquid level shall not be cause for rejection. Slight discolouration of the film shall be permitted. The oil shall not be coloured by extraction of matter from the film. After 24 h recovery time, the film under test shall be equal in hardness, toughness and anchorage to the film on an unexposed panel when tested in accordance with CGSB standard 1-GP-71, Method 109.2.
- 4.11 **Water Resistance** — The lacquer film applied over a primer conforming to CAN/CGSB-1.158 shall withstand 24 h immersion in water at 23°C without showing any cracking, blistering or whitening. A slight whitening or dulling that is removable by light wiping with a soft cloth shall not be cause for rejection. The water shall not be coloured by extraction of matter from the film. The lacquer film subjected to the tape test shall show no separation of the lacquer from the primer or of primer from the metal when tested in accordance with CGSB standard 1-GP-71, Method 110.10.
- 4.12 **Baking Resistance** — The lacquer film applied over a primer conforming to CAN/CGSB-1.158 and baked 48 h at $60 \pm 2^\circ\text{C}$ shall show no considerable colour change when compared with the unbaked film when tested in accordance with CGSB standard 1-GP-71, Method 112.3.
- 4.13 **Low-Temperature Flexibility** — The lacquer film applied over a primer conforming to CAN/CGSB-1.158 shall exhibit no flaking at the bend when subjected to the bending test at 0°C using a 6.4 mm mandrel in accordance with CGSB standard 1-GP-71, Method 119.15. Fine cracks shall not be cause for rejection.
- 4.14 **Behaviour Toward Undercoats and Self-Lifting**
- 4.14.1 A single coat of the lacquer applied over a primer conforming to CAN/CGSB-1.158 shall not cause lifting nor more than moderate softening of the primer.
- 4.14.2 A second coat of the lacquer, applied at intervals of 1/2, 1, and 2 h after the application of the first coat of lacquer, shall not cause lifting or wrinkling of either the primer or the first coat of lacquer when tested in accordance with CGSB standard 1-GP-71, Method 133.1.
- 4.15 **Adhesion** — Panels coated with a primer conforming to CAN/CGSB-1.158, top-coated with the lacquer and subjected to the knife test, shall produce a ribbon of film with no evidence of intercoat separation. There shall be no flaking, loosening or separation of coats in the area adjacent to the scratch when tested in accordance with CGSB standard 1-GP-71, Method 135.6.
- 4.16 **Print Resistance** — Lacquer film applied over primer conforming to CAN/CGSB-1.158, dried 16 h and subjected to the print test using a pressure of 7 kPa, shall show no imprint 4 h after removal of the fabric when tested in accordance with CGSB standard 1-GP-71, Method 142.1.
- 4.17 **Accelerated Weathering Resistance** — Two coats of lacquer applied to aluminum panels coated with primer conforming to CAN/CGSB-1.158 shall withstand twenty 24 h cycles in an accelerated weathering machine without showing evidence of blistering, chalking, checking, cracking, flaking and peeling. Except for Yellow 505-301, which may show some darkening when tested in accordance with CGSB standard 1-GP-71, Method 122.10, the lacquer shall not show more than a very slight colour change.

- 4.18 **Infra-Red Reflectance** — Colours specified in par. 7.1 shall show an infra-red reflectance of not less than 29%, and not more than 55% when tested in accordance with U.S. Federal Test Method Standard No. 141, par. 2.1.1 and 4.1.1 of Method 6242.

5. PREPARATION FOR DELIVERY

- 5.1 Unless otherwise specified (par. 7.1), preparation for delivery shall conform to normal commercial practice.
- 5.2 **Labelling** — In addition to complying with the labelling requirements of any relevant Acts or Regulations, each container shall be suitably labelled to show the following information:

Name of material

Standard number: CAN/CGSB-1.160-93

Colour and number conforming to CGSB standard 1-GP-12

Manufacturer's name and address

Manufacturer's batch number

Manufacturer's code number

Date of manufacture

Thinning instructions for spraying using thinner conforming to CAN/CGSB-1.197.

- 5.3 **Toxic Elements** — This material shall be labelled to conform to the requirements of the Hazardous Products Act in respect to designated toxic elements.

6. INSPECTION

- 6.1 **Sampling** — Sampling shall be carried out in accordance with CGSB standard 1-GP-71, Method 1.1.
- 6.2 The procedures for rating the effect or change in CGSB standard 1-GP-71, Method 143.1 shall be used, as applicable, for evaluating performance.

7. NOTES

- 7.1 **Options** — The following options must be specified in the application of this standard:

- a. Colour required (par. 4.6)
- b. Contrast ratio, if colours other than those listed are required (par. 4.7)
- c. Colours for Infra-Red Reflectance test (par. 4.18)
- d. Preparation for delivery, if other than as specified (par. 5.1).

7.2 Related Publications

7.2.1 *Conversion Coatings*

CGSB

1-GP-121 — Coating, Vinyl, Pretreatment, for Metals (Vinyl Wash Primer)

31-GP-101 — Chemical Conversion Films for Aluminum and Aluminum Alloys

31-GP-105 — Zinc Phosphate Conversion Coating for Paint Base.

U.S. Military Specification

MIL-C-5541 — Chemical Conversion Coatings on Aluminum and Aluminum Alloys.

7.2.2 **Primers**

CGSB

CAN/CGSB-1.158 — Cellulose Nitrate Primer, Modified Alkyd Type

U.S. Military Specification

MIL-P-23377 — Primer Coatings, Epoxy, Chemical and Solvent Resistant.

7.2.3 **Topcoats**

CAN/CGSB-1.135 — Flat Alkyd Enamel for Equipment

CAN/CGSB-1.143 — Heat Resistant Aluminum Enamel, Silicone Alkyd

CAN/CGSB-1.159 — Acrylic Cellulose Nitrate Gloss Lacquer

U.S. Military Specification

MIL-L-19538C — Lacquer, Acrylic Nitrocellulose, Camouflage (for Aircraft use).

7.2.4 **Thinner**

U.S. Military Specification

MIL-T-81772B — Thinner, Aircraft Coating.

7.2.5 **Colours**

Federal Standard 595 B — Colors used in Government Procurement.

7.3 **Sources of Referenced Publications**

7.3.1 The CGSB publications referred to in par. 2.1.1, 7.2.1, 7.2.2 and 7.2.3 may be obtained from the Canadian General Standards Board, Sales Centre, Ottawa, Canada K1A 1G6. Telephone 1-800-665-CGSB. Fax (613) 941-8705.

7.3.2 The publication referred to in par. 2.1.2 may be obtained from the Canada Communication Group, Publishing, Ottawa, Canada K1A 0S9. Telephone (819) 956-4802.

7.3.3 The publications referred to in par. 2.1.3 may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, U.S.A., or photocopies are available from the CGSB Sales Centre (par. 7.3.1).

7.3.4 The U.S. Military publications referred to in par. 2.1.4, 7.2.1, 7.2.2, 7.2.3 and 7.2.4 may be obtained from The Naval and Publications Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120, U.S.A.

7.3.5 The publication referred to in par. 7.2.5 may be obtained from MICROMEDIA LIMITED, Technical Information Services, 165 Hôtel de Ville, Hull, Quebec, Canada J8X 3X2.

- 7.3.2 La publication mentionnée à l'al. 2.1.2 est diffusée par le Groupe Communication Canada, Édition, Ottawa, Canada K1A 0S9. Téléphone (819) 956-4802.
- 7.3.3 Les publications mentionnées à l'al. 2.1.3 sont diffusées par l'American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, U.S.A., ou des photocopies sont disponibles auprès du Centre des ventes de l'ONGC (al. 7.3.1).
- 7.3.4 Les publications (U.S. Military Specifications) mentionnées à l'al. 2.1.4, 7.2.1, 7.2.2, 7.2.3 et 7.2.4 sont diffusées par le Naval and Publications Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120, U.S.A.
- 7.3.5 La publication mentionnée à l'al. 7.2.5 est diffusée par MICROMEDIA LIMITED, Service de renseignements techniques, 165, rue Hôtel de Ville, Hull, Québec, Canada J8X 3X2.
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Withdrawn/Retirée

- 6.2 Les méthodes d'évaluation des effets ou des changements décrites dans la méthode 143.1 de la norme 1-GP-71 de l'ONGC doivent être utilisées, selon le cas, pour évaluer la tenue en service.

7. REMARQUES

- 7.1 **Options** — Les options suivantes doivent être précisées lors de l'application de la présente norme:

- a. Couleur requise (par. 4.6)
- b. Rapport de contraste, si des couleurs autres que celles qui sont prescrites sont exigées (par. 4.7)
- c. Couleurs soumises à l'essai de réflectivité infrarouge (par. 4.18)
- d. Préparation pour la livraison, si elle diffère de celle qui est prescrite (par. 5.1).

7.2 Publications connexes

7.2.1 *Revêtements par conversion*

ONGC

1-GP-121 — Enduit aux résines vinyliques, préparation des surfaces métalliques (peinture primaire réactive vinylique)

31-GP-101 — Revêtements de conversion chimique, pour l'aluminium et les alliages d'aluminium

31-GP-105 — Revêtement de conversion au phosphate de zinc, base de peinture

U.S. Military Specification

MIL-C-5541 — Chemical Conversion Coatings on Aluminum and Aluminum Alloys.

7.2.2 *Peintures primaires*

ONGC

CAN/CGSB-1.158 — Peinture-laque pour couche primaire, au nitrate de cellulose et aux résines alkydes modifiées

US Military Specification

MIL-P-23377 — Primer Coatings, Epoxy, Chemical and Solvent Resistant.

7.2.3 *Peintures de finition*

ONGC

CAN/CGSB-1.135 — Peinture-émail mate aux résines alkydes pour équipement

CAN/CGSB-1.143 — Peinture-émail aux résines silicones-alkydes à l'aluminium, résistante à la chaleur

CAN/CGSB-1.159 — Produit-laque brillant à la résine acrylique et au nitrate de cellulose

U.S. Military Specification

MIL-L-19538C — Lacquer, Acrylic Nitrocellulose, Camouflage (for Aircraft use).

7.2.4 *Diluants*

U.S. Military Specification

MIL-T-81772B — Thinner, Aircraft Coating.

7.2.5 *Couleurs*

Federal Standard 595 B — Colors used in Government Procurement.

7.3 Sources de diffusion des publications de référence

- 7.3.1 Les publications de l'ONGC mentionnées aux al. 2.1.1, 7.2.1, 7.2.2 et 7.2.3 sont diffusées par l'Office des normes générales du Canada, Centre des ventes, Ottawa, Canada K1A 1G6. Téléphone 1-800-665-CGSB. Télécopieur (613) 941-8705.