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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These CGSB standards and National Standards of Canada are hereby withdrawn due to limited use and support for their revision.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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to be referred to for archival purposes only as their content has been repealed as of the date on this withdrawal notice.

Archived copies of withdrawn standards for historic or archival purposes are still available from the CGSB Sales Centre by telephone at 819-956-0425 or 1-800-665-2472, by fax at 819-956-5740, by Internet at www.tpsgc-pwgsc.gc.ca/ongc-cgsb/, by e-mail at ncr.CGSB-ONGC@tpsgc-pwgsc.gc.ca or by mail at Sales Centre, Canadian General Standards Board, 11 Laurier Street, Gatineau, Canada K1A 1G6.

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 polyuréthanes (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)

CANADIAN GENERAL
STANDARDS BOARD

LEAD AND CHROMATE-FREE
WATERBORNE TRAFFIC PAINT

2. REFERENCED PUBLICATIONS

- 2.1.3 American Society for Testing and Materials (ASTM)

Add the following publication:

D 823 - Standard Practices for Producing Films of Uniform Thickness of Paint, Varnish and Related Products on Test Panels

4. DETAILED REQUIREMENTS

Replace par. 4.9 by the following new paragraph.

- 4.9 **Mud Cracking** - The coating material shall be applied at a uniform thickness to a glass test panel. After drying, the coating surface shall be examined visually to determine if any mud cracks have developed while drying. Patterns created by these cracks shall not be considered for evaluation in this method. Test results evaluations are on a pass/fail basis. A failure is any crack that reveals the underlying contrasting colour. Surface cracks shall be ignored. See par. 6.2.

6. INSPECTION

Add the following new par. 6.2.

6.2 Testing

- 6.2.1 **Mud Cracking** - Apply the paint to a clean, dry glass panel (prepared in accordance with CGSB Test Method 102.1 at a dry film thickness of 200

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DU CANADA

PEINTURE À L'EAU DE DÉMARCATIION
ROUTIÈRE SANS PLOMB NI CHROMATE

PUBLICATIONS DE RÉFÉRENCE

- American Society for Testing and Materials (ASTM)

Ajouter la publication suivante:

D 823 - Standard Practices for Producing Films of Uniform Thickness of Paint, Varnish and Related Products on Test Panels

EXIGENCES PARTICULIÈRES

Remplacer le par. 4.9 par le nouveau paragraphe suivant :

Fissures - La peinture doit être appliquée en une couche d'épaisseur uniforme sur une plaque de verre. Laisser sécher, puis examiner à l'œil nu la surface du revêtement pour détecter toute fissure formée durant le séchage. Ne pas tenir compte du motif que forment les fissures, lors de l'évaluation. Les résultats de l'essai sont jugés satisfaisants ou insatisfaisants. Un résultat insatisfaisant est caractérisé par la présence de toute fissure permettant de voir la couleur contrastante sous-jacente. Ne pas tenir compte des fissures superficielles. Voir le par. 6.2.

INSPECTION

Ajouter le nouveau par. 6.2.

Essai

Fissures - Appliquer la peinture sur une plaque de verre propre et sèche (préparée conformément à la méthode d'essai 102.1 de l'ONGC, de façon à obtenir

to 250 μm), and allow to air dry at room temperature of $23 \pm 2^\circ\text{C}$ and a relative humidity of $50 \pm 5\%$ for 24 h (see CGSB Test Method 103.1 and ASTM D 823). When dry, using 10X magnification, examine the coating surface for cracks or breaks that expose the substrate. Since the degree of cracking can vary over the entire film surface, they should be sought over a minimum area of 100 mm x 150 mm. The test panel should be placed on a contrasting coloured background to make any mud cracks in the paint film more visible.

un revêtement de 200 à 250 μm d'épaisseur), puis laisser sécher à la température ambiante de $23 \pm 2^\circ\text{C}$ et à une humidité relative de $50 \pm 5\%$ pendant 24 h (voir la méthode d'essai 103.1 de l'ONGC et la méthode D 823 de l'ASTM). Après séchage, examiner la surface du revêtement sous un grossissement de 10X pour déceler toute fissure ou solution de continuité mettant à nu le subjectile. Comme le degré de fissuration peut varier sur la totalité de la surface du revêtement, procéder à l'examen d'une aire d'au moins 100 mm x 150 mm. Pour mieux percevoir toute éventuelle fissure sur le feuil de peinture, disposer la plaque contre un fond de couleur contrastante.

Withdrawn/Retired



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CAN/CGSB-1.219-2001

Lead and Chromate-free Waterborne Traffic Paint

National Standard of Canada

Canada

Experience and excellence

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LEAD AND CHROMATE-FREE WATERBORNE TRAFFIC PAINT

Prepared by the
Canadian General Standards Board 

Approved by the
Standards Council of Canada 

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CANADIAN GENERAL STANDARDS BOARD

LEAD AND CHROMATE-FREE WATERBORNE TRAFFIC PAINT**1. SCOPE**

- 1.1 This standard applies to lead and chromate-free waterborne traffic paint suitable for application by spray onto bituminous and concrete pavements.
- 1.2 This paint may be used as a touch-up paint when applied by brush to small areas such as curbs and warehouse markings.
- 1.3 This standard also makes reference to glass overlay reflectorizing beads, which may be used with the paint.
- 1.4 The testing and evaluation of a product against this standard may require the use of material 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 applicable regulatory requirements prior to its use.

2. REFERENCED PUBLICATIONS

- 2.1 The following publications are referenced in this standard:

- 2.1.1 Canadian General Standards Board (CGSB)

- 1-GP-71 — Methods of Testing Paints and Pigments.

- 2.1.2 Health Canada

- Hazardous Products (Liquid Coating Materials Regulations) Act.

- 2.1.3 American Society for Testing and Materials (ASTM)

- D 185 — Standard Test Methods for Coarse Particles in Pigments, Pastes, and Paints

- D 711 — Standard Test Method for No-Pick-Up Time of Traffic Paint

- D 868 — Standard Test Method for Evaluating Degree of Bleeding of Traffic Paint

- D 869 — Standard Test Method for Evaluating Degree of Settling of Paint

- D 968 — Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive

- D 969 — Standard Test Method for Laboratory Determination of Degree of Bleeding of Traffic Paint

- D 1210 — Standard Test Method for Fineness of Dispersion of Pigment-Vehicle Systems by Hegman-Type Gage

- D 2205 — Standard Guide for Selection of Tests for Traffic Paints

- D 3960 — Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings

- E 97 — Directional Reflectance Factor 45-deg 0-deg of Opaque Specimens by Broad-Band Filter Reflectometry (Discontinued).

- 2.1.4 U.S. General Services Administration

- Federal Standard

- 595B — Colors Used in Government Procurement.

- 2.2 A reference to a regulation is always to the latest issue. A dated reference is to the issue specified. An undated reference is to the latest issue, unless otherwise specified by the authority applying this standard. The sources are given in the Notes section.

3. GENERAL REQUIREMENTS

- 3.1 The paint shall consist of suitable lead and chromate-free pigments adequately dispersed in a water-based medium with the necessary thinners.
- 3.2 The materials used in the manufacture of the paint shall be of such high quality and consistency that the paint's appearance will not change in service to impair the colour or visibility of the delineation. The paint film shall be flat in finish, and the white and yellow markings shall be visible under daylight and artificial light after the addition of the glass overlay reflectorizing beads.
- 3.3 The paint shall not skin, thicken excessively or cake in the original unopened container for six months from the date of delivery when stored at temperatures between 5°C and 40°C. At the end of this time it shall be readily mixed to a uniform condition by simple stirring, without the addition of water, and shall meet the requirements for no-pickup time.
- 3.4 The handling and storage qualities including degree of settling, uniform consistency, viscosity, absence of skinning, and thixotropic properties shall be acceptable.
- 3.5 The paint shall be capable of being sufficiently atomized to produce a uniformly applied paint stripe without side spatter and overspray within the limitation imposed by conventional striping equipment.
- 3.6 **Toxic Elements** — The paint shall be manufactured in accordance with the requirements of the *Hazardous Products (Liquid Coating Materials Regulations) Act* for designated toxic elements.

4. DETAILED REQUIREMENTS

The traffic paint shall comply with the following requirements when tested in accordance with the specified test methods.

		Test Method			
		Min.	Max.	CGSB 1-GP-71	ASTM
4.1	Consistency, Krebs units	80.0	—	4.5	—
4.2	No-pickup time, minutes	—	—	—	D 711
	Coning	—	15 ¹	—	—
	Non-coning	—	10	—	—
4.3	Fineness of grind, Hegman	2	—	—	D 1210
4.4	Settling rate, 6 months	5.0	—	—	D 869
4.5	Contrast ratio at 250 µm DFT	0.98	—	14.7	—
4.6	Volatile Organic Compound (VOC), g/L, use DFT of 300 µm	—	250	—	D 3960
4.7	Coarse particles				
	250 µm (No. 50 sieve)	—	nil	—	D 185 and D 2205
	150 µm (No. 100 sieve)	—	0.01% by weight	—	D 185 and D 2205
4.8	Abrasion — The paint shall have a minimum abrasion resistance of 5 L of sand per mil thickness of paint when tested in accordance with ASTM D 968. Conduct the test using a DFT of 75 µm under standard conditions and CGSB standard 1-GP-71, Method 103.1.				
4.9	Flexibility — The paint shall not crack or peel when subjected to the bending test at 23 ± 2°C, using a 12.7 mm mandrel in accordance with CGSB standard 1-GP-71, Method 119.1. Conduct the test using a DFT of 200 µm under standard conditions and CGSB standard 1-GP-71, Method 103.1.				

¹Test at a DFT of 200 µm (8 mils).

- 4.10 **Bleeding Test** — White and yellow traffic paint shall have a bleeding resistance rating of 4 or higher when tested on an asphalt-saturated substrate in accordance with ASTM D 868 and D 969.
- 4.11 **Reflectance** — When tested in accordance with ASTM E 97, the daylight reflectance of the paint shall be as follows:
- White — not less than 80%
- Black — not more than 4%
- Yellow — not less than 45%
- Blue — not less than 28%
- Conduct the test using a DFT of 200 µm under standard conditions and CGSB standard 1-GP-71, Method 103.1.
- 4.12 **Colour** — The paint shall be an approximate match to the following U.S. Federal Standard 595B colours or to an adequately defined commercial colour, as specified (par. 7.1), when tested in accordance with CGSB standard 1-GP-71, Method 12.9.
- | | |
|--------|-------|
| White | 37925 |
| Yellow | 33538 |
| Black | 37038 |
| Blue | 35250 |

5. PREPARATION FOR DELIVERY

- 5.1 Unless otherwise specified (par. 7.1), preparation for delivery shall conform to normal commercial practice.
- 5.2 **Packaging and Labelling**
- 5.2.1 The paint shall be supplied in containers as specified (par. 7.1).
- 5.2.2 Each container shall be clearly labelled on the side and the top with weather-resistant markings.
- 5.2.3 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-1.219-2001
- Manufacturer's name and address
- Colour
- Manufacturer's batch number
- Manufacturer's code number (if applicable)
- Date of manufacture
- Volume of contents in litres
- Thinning instructions.

6. INSPECTION

- 6.1 **Sampling** — Sampling shall be carried out in accordance with CGSB standard 1-GP-71, Method 1.1.

7. NOTES

- 7.1 **Options** — The following options must be specified in the application of this standard:
- Colour (par. 4.10)
 - Preparation for delivery, if other than as specified (par. 5.1)
 - Containers (par. 5.2.1).

7.2 Recommended Practice

- 7.2.1 Thinning is not normally required, but if necessary, the paint may be reduced according to manufacturer's instructions.
- 7.2.2 The paint should be applied (without overlay) using stainless steel equipment at a dry film thickness of between 200 and 250 μm (8 to 10 mils) at ambient temperature. It shall not be applied when the relative humidity is a minimum of 85% or when the temperature falls below the dew point.
- 7.2.3 Glass overlay reflectorizing beads may be applied to the sprayed paint. The paint shall provide proper anchorage for the glass overlay reflectorizing beads. The beads should be applied at the rate of 0.5 Kg/L of paint.

7.3 Related Publications

- 7.3.1 Canadian General Standards Board (CGSB)
CAN/CGSB-1.74 — Alkyd Traffic Paint
CAN/CGSB-1.220 — Lead and Chromate-free Alkyd Traffic Paint.
- 7.3.2 Ontario Provincial Standard Specifications
OPSS 1716 — Material Specification for Water-Borne Traffic Paint
OPSS 1750 — Material Specification for Traffic Paint Reflectorizing Glass Beads.

7.4 Sources of Referenced Publications

- 7.4.1 The publications referred to in par. 2.1.1 and 7.3.1 may be obtained from the Canadian General Standards Board, Sales Centre, Ottawa, Canada K1A 1G6. Telephone (819) 956-0425 or 1-800-665-CGSB (Canada only). Fax (819) 956-5644.
 - 7.4.2 The publication referred to in par. 2.1.2 may be obtained from Health Canada, Products Safety Bureau, Statistics Canada Main Building, Room 1000, Tunneys Pasture, Ottawa, Ontario K1A 0K9. Telephone (613) 957-9545.
 - 7.4.3 The publications referred to in par. 2.1.3 may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, U.S.A., or from IHS Canada, Suite 305, 240 Catherine Street, Ottawa, Canada K2P 2G8, telephone (613) 237-4250 or 1-800-567-1914.
 - 7.4.4 The publication referred to in par. 2.1.4 may be obtained from IHS Canada, Suite 305, 240 Catherine Street, Ottawa, Canada K2P 2G8. Telephone (613) 237-4250 or 1-800-567-1914.
 - 7.4.5 The publications referred to in par. 7.3.2 may be obtained from Ronen House, 505 Consumers Road, Suite 910, North York, Ontario M2J 4V8. Telephone 1-800-856-2196. Fax 1-800-870-7239.
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