Australian Standard™

Vitreous enamel coatings- - Glossary of terms

Standards Australia

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Australian Gas Association

Australian Paint Manufacturers Federation

Gas Appliance Manufacturers Association of Australia

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PREFACE

This Standard was prepared by Committee CH-007 to supersede AS 1914—1976, *Glossary of terms relating to vitreous enamel coatings*.

The objective of this Standard is to provide a list of current terms used in the vitreous enamel industry and to delete terms from the Standard that have become redundant.

During the revision of this Standard, the Committee considered only those terms in constant use in the vitreous enamelling industry in Australia, and which relate to the coating itself.

FOREWORD

Many terms that relate to vitreous enamel coatings are known by more than one name, but, unfortunately, each name is not always used with the same meaning; moreover, in the case of some defects, the same name may be used by two persons to indicate two entirely different types of defect. Such variations in meaning have led to confusion, especially where writing is the only form of communication in the exchange of ideas.

This Standard concentrates on definitions of those terms which relate to the vitreous enamel coating.

STANDARDS AUSTRALIA

Australian Standard

Vitreous enamel coatings—Glossary of terms

Term	Definition
abrasion resistance	The degree to which a vitreous enamel coating resists damage by abrasive materials.
acid resistance	The degree to which a vitreous enamel coating resists attack by acids.
adherence	The bond strength between an enamel and a prepared metal surface or underlying coat of enamel.
ageing	Storing of milled enamel to improve its application properties.
alkali resistance	The degree to which a vitreous enamel coating resists attack by alkalis.
aluminium enamel	A vitreous enamel applied to aluminium metal substrates.
back emission	Powder rejection due to excessive charge build-up in the powder film during application.
beading or edging	The coating of edges of vitreous enamelware with a reinforcing coat of vitreous enamel.
bisque coat	The unfused dry enamel coating.
black specks	*See* 'speckling'.
blistering	Large bubbles at or below the surface of an enamel coating.
boiling	Minute bubbling or blistering occurring during the firing of vitreous enamel.
bond	*See* 'adherence'.
brushing	Removal of the bisque coat from selected areas prior to firing.
bubble	A void in the enamel.
bubble structure	The quantity, size and distribution of bubbles in fired enamel coatings (as observed with a 30× powdered microscope).
burning off	The exposure of metal occurring during the firing operation resulting frequently from the application of too thin a coating. Burning off may also be caused by firing at too high a temperature or by firing for too long a time.
casting cracks	Cracks or hairline depressions in the enamel caused by cracks in the metal casting.
chalked	A powdery condition of the enamel surface which has lost its gloss because of chemical action.
chipped or chipping	The breaking away of fragments of the enamel coating.
contamination	Foreign matter on the metal substrate, on or in the enamel which causes defects in the fired vitreous enamel coating.