

Pavement Marking Materials Testing

APAS Conforming Products

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23 August 2017

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APAS - Australian Paint Approval Scheme



APAS overview

APAS is an accreditation service that provides an independent pre-qualification of paint products to asset owners.

APAS services the architectural & decorative, defence, floor coatings, pavement markings and protective coatings markets.

APAS is administered by the CSIRO under the direction of the Executive Officer (EO).

APAS Executive Officer- overview

The EO acts as the technical co-ordinator between APAS members (government departments), the coatings industry and the Australian government.

The EO ensures that APAS is technically robust, independent and relevant.

Road owners can choose with greater confidence, paints and beads that will provide safety and serviceability results that conforms to, or exceeds, published standards.

APAS Executive Officer- overview

The EO ensures that:-

- Manufacture of paints in factories where quality management systems drive best practice.
- APAS approved paint product has been formulated to conform to both Australian Standards and additional high-performance APAS specifications.

APAS – product evaluation

APAS does not do any product testing as it is a requirement that it remain independent of testing activities.

Infrastructure Technologies– product evaluation

Infrastructure Technologies has both the capability and the expertise to undertake laboratory testing of pavement markings.

APAS – services provided

- Auditing of manufacturers, suppliers and products
- Specification writing

Quality accreditations - manufacturers

- ISO 9001 - Quality management systems (mandatory)



Quality accreditations - manufacturers

- ISO 17025 – General requirements for the competence of testing & calibration laboratories (optional)



Quality accreditations - manufacturers

- ISO 14001 - Environmental management systems (optional)
- OHSAS 18001 or AS/NZS 4801 - OH&S management systems (optional)

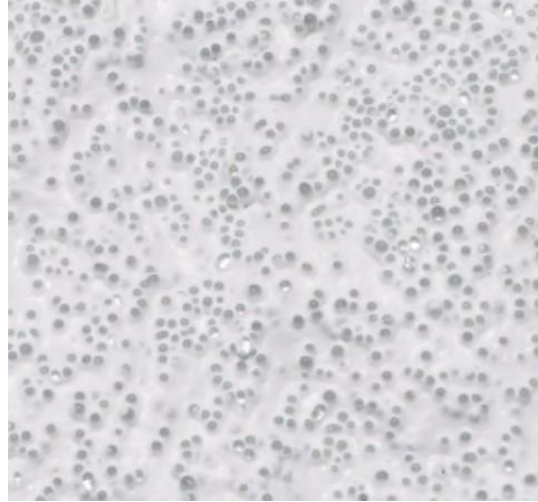
Audit elements - manufacturers

- Formulation management
- Raw materials storage
- Manufacture
- Quality control
- Filling
- Finished goods storage
- Laboratory management (non ISO 17025 accredited labs)

Additional information - manufacturers

- Audits are done biennially (once the initial audit and the 12 month follow-up audit have been completed).
- Product development is not audited.

APAS accreditation – glass bead



- AS/NZS 2009 Glass beads for pavement marking materials
- AP-S0042 Glass beads for use in pavement marking paints (this specification has been re-written and is now subject to industry review)

Quality elements – glass bead

- Foreign matter
- Optical quality
- Size distribution
- Shape
- Colour
- Water resistance
- Flow properties (when applicable)
- Adhesion coating (when applicable)
- Refractive index
- Heavy metals content
- Retroreflectivity (when applicable)

APAS accreditation – paint

- AP-S0041 Pavement marking paints
- AS 4049 Paint and related materials - Pavement marking materials

Quality elements – solventborne paint

Laboratory testing:

- Condition in container
- Fineness of paint
- Consistency
- Application properties
- **No-pick-up time**
- Colour
- Specular gloss
- Luminance factor
- Resistance to bleeding
- Storage properties

Quality elements – solventborne paint

Field testing:

- Degree of wear
- Retroreflectivity
- Luminance test

In Australia, field testing is currently undertaken by the South Australia Department of Planning Transport Infrastructure.

APAS product approval is for 7 years.

Quality elements – waterborne paint

Laboratory testing:

- Condition in container
- Fineness of paint
- Consistency
- Application properties
- **No-pick-up time**
- Early washout resistance
- Colour
- Specular gloss
- Luminance factor
- Storage properties

Quality elements – waterborne paint

Field testing:

- Degree of wear
- Retroreflectivity
- Luminance test

In Australia, field testing is currently undertaken by the South Australia Department of Planning Transport Infrastructure.

APAS product approval is for 7 years.

Quality elements – CAP

Laboratory testing:

- Luminance factor
- Colour
- VOC

Quality elements – CAP

- Field testing:
- Retroreflectivity
- Degree of wear
- Skid resistance
- Slip resistance
- Luminance factor
- Change of colour

In Australia, field testing is currently undertaken by the South Australia Department of Planning Transport Infrastructure.

APAS product approval is for 7 years.

Quality elements – thermoplastic

Laboratory testing:

- Colour
- Luminance factor
- Heat stability
- Softening point
- Abrasion resistance
- Flow resistance
- Density

Quality elements – thermoplastic

Field testing:

- Skid resistance
- Retroreflectivity
- Degree of wear
- Luminance factor

In Australia, field testing is currently undertaken by the South Australia Department of Planning Transport Infrastructure.

APAS product approval is for 7 years.

Independent review

“The CSIRO’s Australia Paint Approval Scheme (APAS) tests for paint performance and certification to this scheme gives paint manufacturers access to Government contracts in defence, roads and housing as well as the credibility that comes with certification”.



Australian Industry Group

The quest for a level playing field

The non-conforming building products dilemma

November 2013

Thank you

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