Composites UK

EN 124 Position Paper

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Composites UK
Trade Association

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Background and Purpose

- The purpose of this paper is to state the position and concerns of manufacturers of composite manhole covers in relation to the latest revision of BS EN 124:1994 Gully tops and manhole tops for vehicular and pedestrian areas.
- The revised standard presents a higher technical requirement for composite covers than for metallic or concrete covers, and is detrimental to the composites industry across the EU.
- This higher technical requirement may be a consequence of lobbying by the large metal producers but it is compounded by a lack of effective representation from composite manufacturers on both the UK BSI Committee (B/505/4/1) and the CEN/TC 165/WG4 Committee.
- Products conforming to EN124:1994, and therefore placed on the market legally for over 20 years, will be excluded by this revised standard.
- Thus, Composites UK, as the UK trade association for UK composite manufacturers, will lobby on behalf its members for a review of EN 124, with an appeal to CEN and the European Commission

Summary of points of concern

Key Points of Concern on EN124:

- Composite materials cannot comply to the test requirements within the revised standard, making it anti-competitive
- Applicability and costs of AVCP Level 1.
- Increased AVCP surveillance frequency for composite manufacturers will incur astronomical costs that SMEs cannot withstand.
- Inconsistent test regime across various materials (metals, concrete, composite & thermoplastic) is anti-competitive and stifles innovation
- Skid resistance: definition and testing thereof.
- Duration of co-existence period of current and revised standards.
- Lack of effective representation of composite manufacturers and trade associations on both the BSI (B/505/4/1) and CEN/TC 165/WG 4
- The revised EN 124 standard is detrimental to the composites industry in both the UK and EU.

Specific Points of Concern

Skid Resistance

- Concrete covers apart; the revised EN 124 Standard states that skid resistance can be declared by a defined structured surface with a raised pattern or through testing with an unpolished slip resistance value (USRV) of 35.
- There is no scientific evidence to support that a raised pattern surface, irrespective of material or geometry, will provide adequate slip/skid resistance.
- Highways England disputes both the validity of the USRV of the 'unpolished' test – preferring a 'polished' test – and also deems the value of 35 as being too low.

Position: EN 124 fails to meet its original mandate for specifying and verifying a suitable method of skid resistance.
A complete review of all Member State legislation on skid resistance is required.

Specific Points of Concern

Applicability and Costs of AVCP Level 1

- AVCP is Assessment and Verification of Constancy of Performance and is the process by which a manufacturer declares and demonstrates compliance with the standard.
- The main objection to EN 124 is the potential for significant costs to manufacturers to apply AVCP Level 1 to all product classifications. The current EN 124:1994 is effectively operating at AVCP Level 3.
- Level 3 allows the manufacturer to declare compliance on the basis of:
  - Factory Production Control (effectively ISO 9001).
  - Product-type testing by a notified testing laboratory.
- Level 1 adds the requirement for a notified product certification body to issue a certificate of constancy of performance of the product on the basis of:
  - Initial inspection of the manufacturing plant and of factory production control.
  - Continuous surveillance, assessment and evaluation of factory production control.

Specific Points of Concern

Applicability and Costs of AVCP Level 1

- Costs of satisfying AVCP Level 1 are estimated at in excess of £15,000 per product variant, totalling hundreds of thousands or millions of pounds in costs for manufacturers with multiple products variants. This level of cost is prohibitive for SMEs and is anti-competitive.
- The manufacturers of gully and manhole tops know of no other similar product category falling under the Construction Products Regulation (CPR) that are required to satisfy AVCP Level 1.

Position: Review the AVCP level for lower load class products
This is a regulatory matter for the Commission to discuss with member states at the SCC.

Specific Points of Concern

Increased AVCP Surveillance Frequency for Composite Manufacturers

- For composite cover manufacturers, the standard calls for surveillance of the Factory Production Control (FPC) to be undertaken six (6) times per year. Surveillance of the FPC can be reduced to a minimum of twice per year, if no irregularity occurred during 3 consecutive years.

- Other cover materials are subjected to annual AVCP surveillance inspections.
  - Part 2 Cast Iron Once per year
  - Part 3 Steel/Aluminium Once per year
  - Part 4 Concrete Once per year
  - Part 5 Composite 6 times per year
  - Part 6 Thermoplastic Once per year

Specific Points of Concern

Increased AVCP Surveillance Frequency for Composite Manufacturers

- The frequency of AVCP surveillance inspections for composite products is excessive and without scientific justification.
- Manufacturers operating an approved quality management system, e.g. ISO 9001, are deemed compliant with FPC requirements, therefore assessment on an annual basis is sufficient.

Position: AVCP Surveillance Frequency should be once per year for all material classes

Specific Points of Concern

Inconsistent Testing Regime Across Various Materials

- The testing regime described in EN 124 is not consistent across all material classes, creating an uneven ‘playing field’ for component testing and technical bias against composite materials,
- This inconsistent testing regimes prevents any like-for-like comparison in performance between different cover materials.

	Cover Material				
Test	Cast Iron	Steel /Al	Concrete	Composite	Plastic
Fatigue	No	No	No	Yes	No
Creep	No	No	No	Yes	No
Vehicle Fuels	No	No	No	Yes	No
Impact	No	No	No	Yes	Yes

Specific Points of Concern

Inconsistent Testing Regime – applicability of required testing

- An independent IPSS Review and Business Assist Report raises the following points which make the testing regime impossible to apply:
  - Definition of composite material types C1, C2 and C3 is prescriptive
  - Section 4.3.3 Moisture absorption test specifies EN ISO 62:2008 which is a specimen test – applying this to a complete cover is practically impossible
  - Section 4.3.4 Resistance to vehicle fuels refers to EN ISO 175 which is a specimen test and makes the test for a complete cover impossible
  - Section 4.3.6 Weathering demands a test beyond what is appropriate
  - Fatigue testing requirement is new to this standard and there do not appear to be any test houses approved to carry out such a test

Specific Points of Concern

Inconsistent Testing Regime

Position: An inconsistent test regime stifles innovation and is anti-competitive.
All material types for covers should be subjected to a common suite of tests. It is impossible to compare performance otherwise.
An appropriate test regime is critical to ensure applicability of the standard, if tests can not be met then it is not possible to conform to the standard.
The definition of composite materials should not be prescriptive as this stifles innovation and is anti-competitive.

Specific Points of Concern

Duration of Co-Existence Period

- Composite materials cannot meet the required test regime so even an extension of the period of co-existence is insufficient
- The provisional timescale for the revised EN 124 Standard to become live is as follows, however these times are subject to ratification from CEN.
  - From the date of announcement (DOA), the date of availability (DAV) + 3 months. 1st May 2015.
  - Date of publication (DOP) = DAV+ 6 months. 1st November 2015.
  - Date of withdrawal (DOW) DAV + 21 months. 1st February 2017.
    This is when CE marking is likely to become mandatory.

- Replacement of products conforming to EN124:1994, and therefore placed on the market legally, is prohibitive from a cost, testing and time perspective.

Specific Points of Concern

Lack of appropriate representation on committees

- There was inadequate representation from the composite industry on both BSI505/4/1 and CEN/TC165/WG4
  - John Newton died during the drafting of the standard and was not replaced (he was not representing Composites UK)
  - Part 5: Composites is written in a prescriptive manner towards one type of product and as such excludes other composite materials, thus stifling any innovation
  - CEN meeting minutes state that BSI representatives raised the issue of lack of composites representation on that committee but we're over-ruled by the CEN chair.
  - Critical technical decisions were made without appropriate knowledge, experience or impartiality
- Standard appears to breach Guide 17
  - 5.3.1 Implementation cost-effectiveness of standards for SMEs
  - 5.3.2 Availability of suitable test equipment
  - 5.4.4 Should not include unnecessary testing

Composites UK and EN 124 Standard

- This Position Paper presents a situation that is of primary concern to manufacturers of composite covers for gully and manhole tops.
- The publication of a revised EN 124 Standard will place significant and prohibitive costs on manufacturers in order to comply with the standard.
- Furthermore, the inequality and inconsistency of the product type testing regime creates technical bias against composite products that will stifle innovation, is anti-competitive and prevents any comparison in performance between different cover material types.
- The principal concerns amongst manufacturers are:
  - Lack of representation of manufacturers and trade associations on BSI and CEN Committees.
  - Significant quality-related costs to comply with standard; this is practically not possible due to the specified testing regime for composites.
  - Technical bias against composite products: uneven ‘playing field’ compared to other materials.

Composites UK and EN 124 Standard

Position: Composites UK, as the UK trade association for UK composite manufacturers, will therefore lobby CEN and the Commission for a review of EN 124, and will launch an appeal against the standard.
Composites UK will prepare a new work item proposal for immediate revision.
Composites UK will consider other forms of action and will seek legal advice if necessary.

Contact us

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