

Flexible Repair

Products & Systems for roads and airfields



Flexible Repair Products & Systems

Colas is one of the world's leading road and airfield construction and maintenance groups. Over the last seventy years Colas has built up a solid international network including quarries, emulsion plants and coating plants. The group manufactures aggregates, emulsions, modified binders and asphalt for its own projects or for selling to third parties.

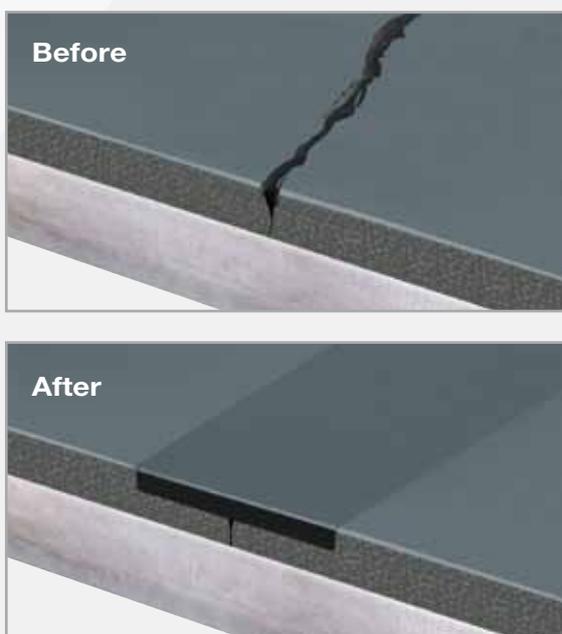
This experience has enabled Colas to develop a range of high performance flexible repair products and systems for asphalt and concrete surfaces.

Many failures on roads and airfield surfaces are caused by cracks and joints which have not been treated. This leads to water and salt penetration and the further deterioration of surfaces and possibly sub-base failures. Surface damage can also lead to safety hazards. Constant maintenance of surfaces and early intervention are therefore required in order to avoid these types of problems and more expensive repairs. Colas' flexible maintenance treatments are designed to be cost effective, prevent reoccurrence of damage and prolong the service life of a surface. Being flexible they are also able to accommodate movement.



Colas flexible repair products and systems can save your roads and airfields

Jointgrip



The Jointgrip range of inlaid sealant systems and products have been designed to offer high performance, long term and cost effective crack repair solutions. The product and system is chosen to suit different types of damage and cracking. Each system involves the removal of the defective area and the creation of a recess. The specially formulated polymer modified bitumen based Jointgrip compound, which also contains rubber and aggregate, is applied into this recess.

The Jointgrip repair solutions are applied flush to the surface therefore providing a smooth riding surface, have excellent stability under heavy traffic loads, provide excellent skid resistance levels and can be applied quickly.

Jointfill



The Jointfill range of sealants have been developed for use in the technique of overseal banding to repair cracks. This is a rapidly applied and cost effective solution of crack repair whereby a Jointfill polymer modified bitumen based sealant is applied over a crack in order to prevent further deterioration of the surface and provide a watertight seal.

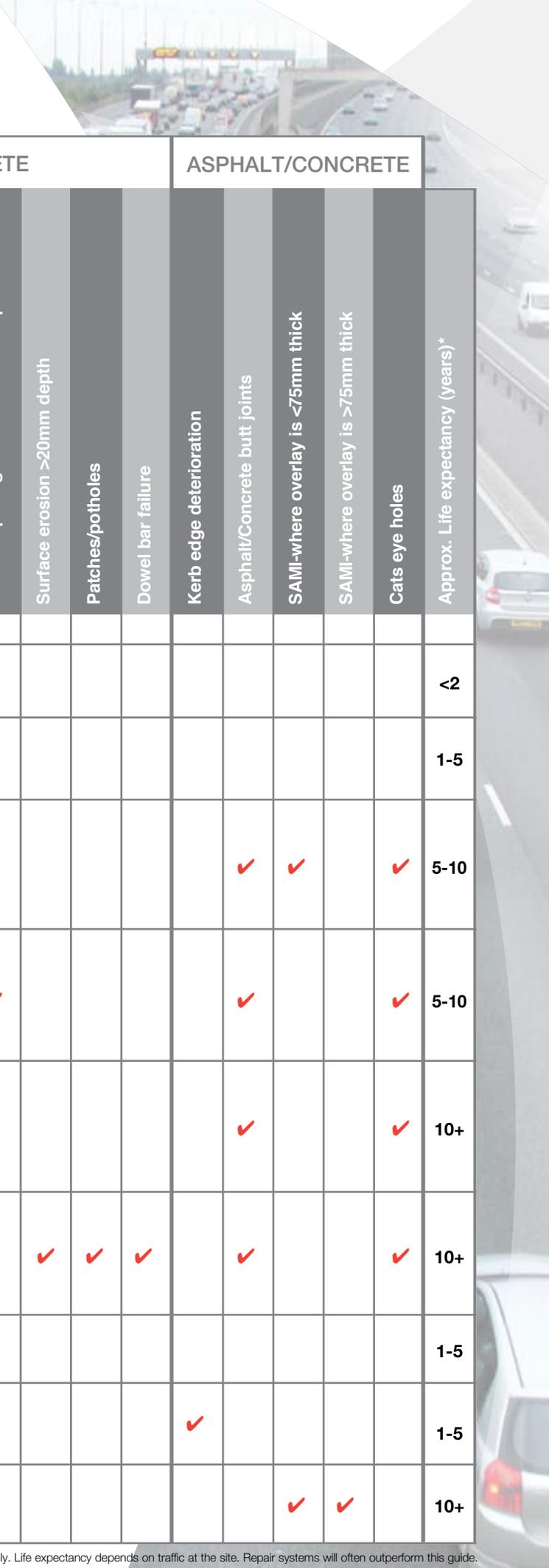
Jointfill sealants are also used for sealing expansion joints in concrete and asphalt.

The Jointfill range of sealants are formulated to resist flow at high temperatures and have excellent flexibility at defined low temperatures.

Colas has developed two distinct flexible product and system groups: Jointfill and Jointgrip. The product selector chart gives an overview of these two systems and acts as a guide when choosing the most appropriate repair method and product for any particular site situation. Products are specially formulated for each type of repair and are available in different grades to suit climatic conditions throughout the world.

System and Product Selector Chart

	REPAIR SYSTEM	PRODUCT	
	Overseal Banding	Jointfill	Traditional short term repair for cracks using a sealant from the Jointfill range of products.
	Rout and Seal	Jointgrip RS	Crack is routed out to create a small recess of typically 30mm x 30mm. This is filled and sealed with Jointgrip RS compound. Durable with long term skid resistance.
	Recessed/inlaid sealant system in asphalt	Jointgrip IS (black)	Defective material is removed using a planer. A recess is created which is then filled and sealed with Jointgrip IS compound. Permanent repair with long term skid resistance. Typical dimensions: up to 250mm (w) and 40mm (d)
	Recessed/inlaid sealant system in concrete	Jointgrip IS (black)/ Jointgrip IS (fawn)	Defective material is removed using a planer. A recess is created which is then filled and sealed with the Jointgrip IS compound. Permanent repair with long term skid resistance. Typical dimensions: up to 250mm (w) and 40mm (d)
	Deep recessed/inlaid sealant system in asphalt	Jointgrip IS (black)	Defective material is removed using a planer. A recess is created which is then filled and sealed with Jointgrip IS compound. Permanent repair with long term skid resistance. For heavy damage where repairs with a depth of 40mm to 200mm are required.
	Deep recessed/inlaid sealant system in concrete	Jointgrip IS (black)/ Jointgrip IS (fawn)	Defective material is removed using a planer. A recess is created which is then filled and sealed with Jointgrip IS compound. Permanent repair with long term skid resistance. For heavy damage from 20mm depth down to dowel bar level.
	Joint Sealing	Jointfill	Traditional method of sealing concrete joints with no spalling using a sealant from the Jointfill range.
	Kerb Sealing	Jointgrip IS	Cracks between the road surface and the kerb are treated with Jointgrip IS containing herbicide to prevent weed growth and give a watertight seal.
	S.A.M.I.	Jointgrip IS	Stress Absorbing Membrane Interlayer. Treatment of cracks before and underneath the application of an asphalt overlay.

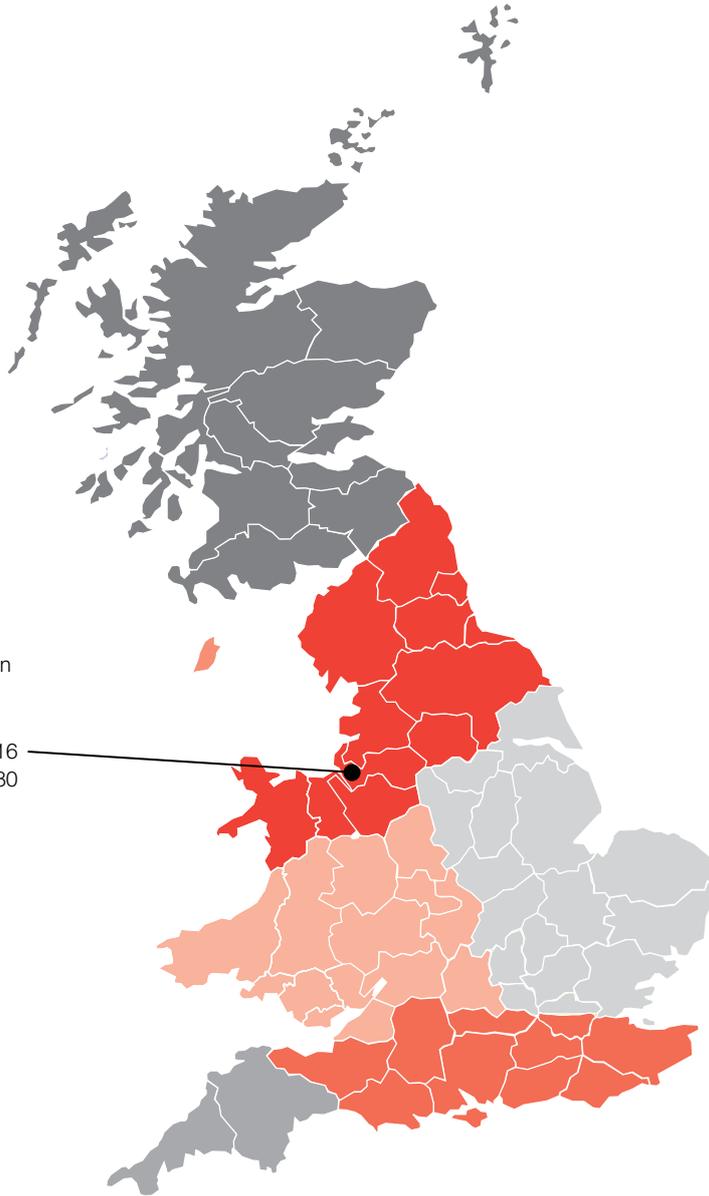


ASPHALT								CONCRETE						ASPHALT/CONCRETE			Approx. Life expectancy (years)*					
Hairline/fatigue/shrinkage crack. Little or no spalling	Single line crack, with some spalling	Single line crack heavy spalling	Multiple/alligator cracking	Reflective cracking	Patches/potholes	Lane joints between asphalt rips	Cracking	Joint failure, no spalling	Joint failure, some spalling	Joint failure, heavy spalling	Surface spalling/erosion <20mm depth	Surface erosion >20mm depth	Patches/potholes	Dowel bar failure	Kerb edge deterioration	Asphalt/Concrete butt joints		SAMI-where overlay is <75mm thick	SAMI-where overlay is >75mm thick	Cats eye holes		
✓							✓														<2	
✓	✓																					1-5
✓	✓	✓		✓		✓										✓	✓		✓			5-10
							✓	✓	✓	✓	✓					✓			✓			5-10
		✓	✓	✓	✓											✓			✓			10+
										✓		✓	✓	✓		✓			✓			10+
								✓														1-5
															✓							1-5
																	✓	✓				10+

*Given as a guide only. Life expectancy depends on traffic at the site. Repair systems will often outperform this guide.

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