

# Facilitating the use of recycled materials: MRS/MRTS05 Unbound Pavements

The Department of Transport and Main Roads (TMR) is continuing to develop ways to build a sustainable road network. This factsheet summarises the key requirements of the MRS/MRTS05 specification suite to facilitate the use of recycled materials in unbound and stabilised pavements.

By increasing the use of recycled materials in these pavements across the state, we can reduce landfill, our greenhouse gas emissions and our reliance on non-renewable natural materials to help us build a circular economy.

## Single specification

MRTS05 provides a single specification for the use of natural, quarried and recycled pavement materials/material blends. TMR doesn't specify the material source to be used. Contractors choose their preferred source from a range of permitted options based on factors such as cost, availability and experience.

There is a single pay item in MRS05 for each material subtype (regardless of source). No extra approvals are required to use recycled materials – unbound materials/material blends that comply with MRTS05 are permitted 'as of right'.



## Recycled Materials and Recycled Material Blends

Recycled materials can be used in any Type 2 pavement material (see overleaf). A 'recycled material blend' is any Type 2 material containing  $\geq 70\%$  recycled materials – these blends have some different requirements tailored to their requirement class.

Type 2 materials can be used where Type 3 materials are specified. Lesser amounts of recycled materials can also be blended with natural or quarried materials.

Recycled content

Requirement class

$\geq 70\%$



Recycled Material Blend

$< 70\%$



General materials

## Registration

Where specified, material sources (including natural, quarried and recycled materials) need to be registered and operated in accordance with the TMR Quarry Registration System (QRS).

For more information on QRS approved suppliers and the registration process visit:

[www.tmr.qld.gov.au/business-industry/Business-with-us/Approved-products-and-suppliers/Pavements-materials-and-geotechnical](http://www.tmr.qld.gov.au/business-industry/Business-with-us/Approved-products-and-suppliers/Pavements-materials-and-geotechnical)



## Waste not want not. TMR's road to sustainable infrastructure



Cost savings



Reducing landfill



Protecting the environment  
and our lifestyle



Network performance



Circular economy



Reducing emissions



Queensland  
Government

# Recycled Material Blend uses

Application	Permissible uses
Base	< 500 ESA*
Subbase and improved layers	All
Non-trafficked shoulders	All
Subgrade treatments	All

\* Average daily traffic in design lane year of opening - Equivalent Standard Axles (ESAs)

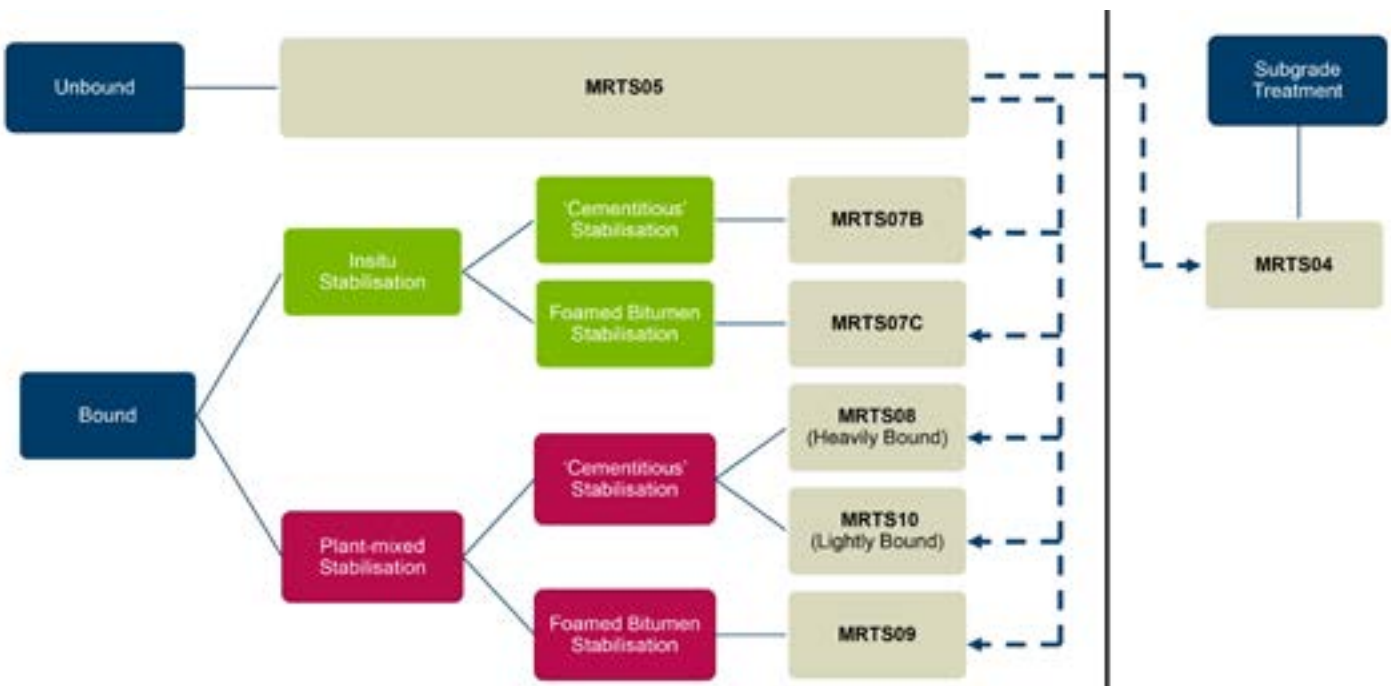
Subtype	Maximum Limit of each Constituent (% by mass)				
	Natural gravel or quarried material	Recycled Materials			
		Recycled concrete	RAP*	Recycled Brick	Recycled Glass^
2.1	100%	100%	0%	0%	0%
2.2			15%	15%	
2.3			20%	20%	20%
2.4				45%	
2.5					

^ Recycled glass shall comply with the MRTS36 Recycled Glass Aggregate.

\* Reclaimed Asphalt Pavement

## Associated TMR specifications

Enabling use in MRTS05 also enables broader use through many other TMR specifications



To learn more about how TMR is using recycled materials in our roads contact:

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