

Federal Highway Research Institute V4 – 767-18 (F6419001)

Note paper – Layer thickness of road marking systems

here: Determination of the measuring methods for checking the layer thickness for the wear simulator test (RPA) of road markings

For the determination of the layer thickness for example the following measuring methods and/or instruments are to be used according to the EN 13137 (edition 2014) and the Zusätzliche Technischen Vertragsbedingungen und Richtlinien für Markierungen auf Straßen (ZTV M 13):

- Measuring comb
- Stencil and measuring wedge
- Measuring slider

- Magnifier with thread counter
- Electronic measuring devices, e.g. scales
- Micrometer screw

Depending on the marking material, the wet layer thickness or dry layer thickness is relevant according to the EN 13197 (edition 2014) and the ZTV M 13. The table below specifies the measurement methods for determining the layer thickness within the scope of applications for the wear simulator test (RPA), differentiated by marking material / system.

Measuring methods for determining the layer thickness differentiated by road marking material / -system								
	Colours	Reactive materials (Cold plastics)			Thermoplastic materials			Tapes
	-	Sprayable systems	Agglomerate markings	Other systems	Sprayable systems	Agglomerate markings	Other systems	-
Wet layer thickness	Measuring comb [µm]	¹ Measuring comb [µm]	-	-	-	-	-	
Dry layer thickness	-	-	-	Stencil and measuring wedge [µm]	Stencil and measuring wedge [µm]	-	Stencil and measuring wedge [µm]	Measuring slide [μm]r
Quantity of material	-	² Scale [kg/m²]	Scale [kg/m²]	-	-	Scale [kg/m²]	-	

¹ Test certificate: Details on the layer thickness determined with the measuring comb [µm]

² Test confirmation: Details of the quantity of material [kg/m²] determined by weighing