

CA Design Guide		No. CADG-101	Product Development Dept. Overseas C&A Div., TMC		
Model:		DB:	Confirmed		
		
Item: Floor Mat / Cargo Mat			Checked		
		
			Prepared		
		
No.	Check Item / Requirement	Planning	1st DR	Final DR	
I	Legal requirements Floor mats and luggage mats should satisfy flame-resistance (FMVSS302 or equivalent) even if there is no such regulation. As to other items, each DB should confirm by themselves if there are any regulation in each country.	[]	[]	[]	
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II	Construction criteria				
1	Slip prevention (applicable to floor mats only) a) Provide slip prevention features (e.g., nibs) on the back of the floor mats so that they will not slip on the floor carpet of the vehicle. b) If the floor carpet of the vehicle has retention holes, provide the floor mats with eyelets and fix the carpet and mats with clips. (A floor mat placed under the driver's seat should have two eyelets.)	[]	[]	[]	
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2	Shape (applicable to floor mats only) a) As a general rule, floor mat for the D seat should be laid under the accelerator pedal, not to cut out the portion. (Check that full-throttle acceleration is possible, however.) When cutting out the floor mat under the pedal, it should be sufficiently large such that the mat and pedal will not interfere with each other. (When the pedal is depressed entirely, there should be <u>40mm</u> clearance between the pedal and the mat.) b) The front edge of front seat floor mats should be positioned in consideration of the following respects: * If controls such as a kickdown switch are closely located, be sure that the floor mat does not interfere with them. * The floor mat should not be too long. It should not be folded toward front seats. * The floor mat should be sized to cover a sufficient area. c) The floor mats should not block the outlet of the (rear) heater duct, nor should they change the flow of air blown from the duct. <input type="checkbox"/> Consult testing sections if deemed necessary. d) Notch the floor mat appropriately if the clearance between	[]	[]	[]	
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	carpet and fuel lid opener and/or between carpet and trunk lid opener is small (20 to 25 mm).			
	e) The shape and thickness of floor mats should be such that the mats will not interfere with the seats when the seats are slidden.	[]	[]	[]
	f) The heel pad on the mat for the D seat should be shaped not to block the movement of the driver's right foot.	[]	[]	[]
3	Other			
	a) If the mats should carry the logo of the car, its style should be consistent with the logo marked on the car body.	[]	[]	[]
	b) Please note that the mats for rear seats may need to have different shape depending on whether the front seats are power-operated or manually operated.			

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III	Evaluation criteria				
1	<p>Slip prevention performance of the mat back (applicable to floor mats only)</p> <p>a) Testing procedure</p> <ul style="list-style-type: none"> * Fix the floor carpet (250 mm □~ 500 mm) of the applicable vehicle on a level surface, e.g., on a table. * Place a cut sample (100 mm □~ 125 mm) of the mats on the carpet and apply a uniformly distributed load of 100 g. * Pull the sample at a speed of 100 mm/min and measure the maximum resistance at which the sample moves 15 cm. <p>b) Criteria</p> <p>When the floor carpet is a cut-pile carpet: No less than 4.9 N When the floor carpet is a loop-pile carpet: No less than 18 N</p>	[]	[]	[]	
2	<p>Material characteristics:</p> <p>The material characteristics shall be as specified in C & A Standard (Floor Mat 3-2).</p> <p>However, for certain characteristics (including heat resistance, low-temperature resistance and smell), criteria may need to be determined according to the needs of local markets.</p>	[]	[]	[]	
3	<p>On-vehicle evaluation (applicable to floor mats only)</p> <p>a) In case that the mat is laid under the accelerator pedal: Make sure that full-throttle acceleration is possible.</p> <p>b) In case of the vehicle with automatic transmission Make sure that kickdown switch functions.</p> <p>c) In case of the vehicle with manual transmission with a clutch start switch: Press the pedal with normal force and check that the engine comes on.</p> <p>d) Make sure that the fuel lid opener and trunk opener can be operated without difficulty.</p> <p>e) Sit on the D seat, press the mat forward with the foot, and check that the mat does not interfere with the accelerator pedal easily.</p> <p>f) Put the mat over the accelerator pedal and make sure that the pedal restores its position with reactive force.</p> <p>g) Tread on the clipped sections and check that no problem occurs, such as disengagement from the eyelets.</p>	[]	[]	[]	
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