

Overview of the CCC requirements for automotive parts & components

Automotive parts and components need CCC certification before entering the Chinese market

The China Compulsory Certification mark (CCC) covers a range of automotive parts and components, and compliance with the mandatory requirement is a precondition for entering the Chinese market. The CCC mark for automotive products is equivalent to a safety mark.

European suppliers for the Chinese automotive industry need to be CCC certified before starting to export to China. The certification procedure includes factory inspection, type testing at a designated Chinese laboratory, and marking of the product.

The EU SME Centre has produced a general guideline for the China Compulsory Certificate that gives a step by step overview of the certification process, which can be downloaded at http://www.eusmecentre.org.cn/content/ccc-guideline

In China the whole passenger car needs to be CCC certified before being imported or sold on the Chinese market, and many parts are required to obtain the CCC mark as well. Generally there are very few exceptions to this rule and exemptions usually apply to single spare parts, or to a small amount of imports. Exemptions are made on a case by case basis and advice should be sought with the Chinese authorities.

Automotive parts and components covered by the CCC include tires, lighting, safety parts, glass, internal trimming, locks and alarms, among others.

The product will be covered by mandatory national (GB) standards that outline detailed requirements and specifications of the product. In addition to GB standards, industrial standards (also known as professional standards) will apply to the product. Professional standards are, for the most part, voluntary and in the automotive industry they are identified by the letters QC, usually followed by the letter T indicating that the standard is applied on a voluntary basis.

Mandatory GB standards are to a large extent harmonised with international ECE standards, however they are often adopted from former versions of ECE standards and can therefore have slightly different technical requirements.

Finally, each of the mentioned categories of automotive parts covered by the CCC mark is subject to an implementation regulation issued by the Chinese national certification and accreditation administration (CNCA). The implementation rules give detailed instructions on CCC procedure, applying standards and how to obtain the CCC mark. There are 12 such guidelines in total.

Certification services can only be provided by designated certification centres located in China. These include the China Certification Centre for Automotive Products (CCAP) among other centres designated by the CNCA. Applications are processed by the China Quality Certification (CQC).

	Summary of automotive parts & components covered by the CCC mark						
Parts	Regulation number	Applicable range	Standards	Sample quantity	CCC mark	CCC mark location	Vehicle category
Horn	CNCA- 02C-055	Electric & air horn	GB15742	2 sets/units	Unified CCC label or printed/moulding tool with the plant code	Suitable position of the object	All
Retro reflector	CNCA- 02C-056		GB11564	10 sets/units 2 samples of each additional colour	Printed/moulding tool with the plant code	Obvious position and that can be easily seen after installation	All
Brake Hose	CNCA- 02C-057	Hydraulic hose assemblies Air hose assemblies Vacuum hose assemblies	GB16897	Hydraulic: 35 sets/units air: 28 sets/units vacuum:17 sets/units (Additional samples may be required with specification change)	Printed/moulding tool with the plant code	On the hose surface	All
Lighting and light- signalling devices	CNCA- 02C-058	Headlamp, turning-signal lamp; front position lamp/rear position lamp/braking lamp/outline marker lamp; front fog lamp, rear fog lamp, reversing lamp, parking lamp, side-marker lamp, rear license-plate light	GB4599 GB4660 GB11554 GB5920 GB15235 GB17509 GB18409 GB18099 GB18408	2 sets/units each kind of lightings	Printed/moulding tool with the plant code	On the surface or obvious position on the object, the mark should be easily seen after installation	All
Rear-view mirror	CNCA- 02C-059		GB15084	3 sets/units with bracket	Unified CCC label or printed/ moulding tool with the plant code	Suitable position of the object	All
Internal fitting material	CNCA- 02C-060	3 kinds: 1) floor mat, 2) seat skin and 3) all the decorating board panel (including door panel, front enclosing protective board, side enclosing protective board, back enclosing protective board, and ceiling)	GB8410	5 sets/units each kind (typical 356mm×100mm)	Unified CCC label or printed/ moulding tool with the plant code	Suitable position of the object or the deepest packing	All

Door lock or door hinge	CNCA- 02C-061		GB15086	Door lock: 4 sets/units Door hinge: 2 sets/units	Unified CCC label or printed/moulding tool with the plant code	Suitable position of the object or the deepest packing	M, N
Fuel tank	CNCA- 02C-062	Metal fuel tank Plastic fuel tank	GB18296	Metal: 3 sets/unit Plastic: 5 sets/unit one set of bracket	Unified CCC label or printed/moulding tool with the plant code	Suitable position on the object	All
Seat and head restraint	CNCA- 02C-063	Seats of the M, N front head restraint of the M1	GB15083 GB11550 GB13057 GB8410	3 sets/units	Unified CCC label or printed/moulding tool with the plant code	Suitable position on the object	M, N
Glass	CNCA- 04C-028	Laminated glass used for windscreen, zone-toughened glass, toughened glass and plastic glass composite material; laminated glass used for other than windscreen, plastic glass composite material, toughened glass and insulated safety glass;	GB9656	6 sets/type	Transfer printing, silk screen printing, etching or sand blasting	Obvious position that can be easily seen after installation	Except sun roof glass
Tire	CNCA- 03C-027	All, except temporary spare tire	GB9746 GB/T2978	3 sets/type	Carved with the compulsory certification mark on their moulds.	Obvious position that can be easily seen after installation	All
Seatbelt	CNCA- 02C-026	Vehicles of M and N category	GB14166	6 sets/type + 15m/type	Sewed on straps close to safety belt anchorage, or directly applied, by mould pressing	Obvious position that can be easily seen after installation	All

Source: CNCA implementation regulations: http://www.cnca.gov.cn/cnca/cncatest/20040420/column/227.htm

Lighting and light signalling: Implementation rules for compulsory certification of motor vehicle products - exterior lighting and light-signalling devices (CNCA-02C-058:2005)

This rule applies to various kinds of external lighting and lighting signal devices (lamps) used for vehicles of M, N and O categories. The interior lamps (e.g. reading and door lamps) are not included. Grouped lamps or lamps with multi-functions can be classified in the same unit and will only need one certificate. The manufacturers are usually required to provide 2 samples for each unit. The sampling principle is described in the implementation rule.

Mandatory standards	Mandatory standards				
Product	GB standard	International standards			
Headlamp	GB 4599 Motor vehicle headlamps equipped with	ECE R1, R8, R20, R112			
_	filament lamps	ECE R5 (SB), R31(HSB)			
		76/761/EEC			
		ECE R98, R99(light			
		resource)			
Front fog lamp for motor	GB 4660 Motor vehicle front fog lamps equipped with	ECE R19,			
vehicle	filament lamps	76/762EEC			
Rear fog lamp for automobile	GB 11554 Photometric characteristics of rear fog lamp	ECE R38,			
and trailer	for power-driven vehicles and their trailers	77/538/EEC			
Front position lamp/rear	GB 5920 Photometric characteristics of front and rear	ECE R7,			
position lamp/end-outline	position lamps, end-outline marker lamps and stop	76/758EEC			
marker lamp and stop lamp	lamps for motor vehicles and their trailers				
Reversing lamp for motor	GB 15235 Photometric characteristics of reversing	ECE R23,			
vehicle	lamps for power-driven vehicles	77/539/EEC			
Direction indicator for motor	GB 17509 Photometric characteristics of direction	ECE R6,			
vehicle and trailer	indicators for motor vehicles and their trailers	76/759EEC			
Parking lamp for motor	GB 18409 Photometric characteristics of parking	ECE R77			
vehicle	lamps for power-driven vehicles	77/540/EEC			
Side-marker lamp of motor	GB 18099 Photometric characteristics of side-marker	ECE R91;			
vehicle	lamps for motor vehicles and their trailers	76/758EEC (idem as position			
and trailer		lamp)			
Rear registration plate	GB 18408 Photometric characteristics of devices for	ECE R4			
illuminating	the illumination of rear registration plates of motor	76/760/EEC			
device for motor vehicle and	vehicles and their trailers				
trailer					

Retro reflector: Implementation rules for compulsory certification of motor vehicle products - retroreflector for motor vehicles (CNCA-02C-056:2005)

This includes category IA and IIIA such as reflectors for trailers or triangles. The mandatory standard GB11564 outlines qualities such as resistance to water, heat, fuel, etc. 10 samples are to be submitted and an additional 2 samples per colour.

Mandatory standards			
Product	GB standard	International standards	
Retro-reflector for	GB11564 Retro-reflector for	ECE R3	
motor vehicles	motor vehicles	76/757/EEC	

Horn: Implementation rules for compulsory certification of motor vehicle products - horn for motor vehicles (CNCA-02C-055:2005)

This rule cover horns for motor vehicles of M, N, L3, L4 and L5 categories that are operated by electricity or compressed air. Not included in this category are special purpose horns (police and ambulance) or interior sound systems. Related voltage is either 12v or 24v and covers both monophony and polyphony horns. Tests are conducted against the products' durability and sound level.

Mandatory standards			
Product	GB standard	International standards	
Horn for motor	GB15742 Performance	ECE R28	
vehicles	requirements and test methods of	70/388/EEC	
	horn for motor vehicles		

Seat and head restraint: Implementation rules for compulsory certification of motor vehicle products - seat and seat headrest products for motor vehicles (CNCA-02C-063:2005)

This applies to seat products for motor vehicles of M and N categories and head restraint products for front seats for motor vehicles of M1 category. It does not apply to an additional folding seat, side-facing seat or rear ward-facing seat and not for a passenger vehicle with over 9 seats. It generally covers all types of seats e.g. manual seat, electric seat, etc. If the head restraint is produced by the same manufacturer it can be certified as one unit. The testing will also take into consideration the flammability of interior fittings.

Mandatory standards			
Product	GB standard	International standards	
Seat for vehicles of categories	GB15083 Motor vehicles-Seat systems-Strength	ECE R17	
M1 and N	requirements and test methods	74/408/EEC	
Head restraint	GB11550 Motor vehicles-Seats head restraints-	ECE R25, R17	
	Performance requirements and test methods	78/932/EEC	
Seat for vehicles of categories	GB13057 Intensity requirements of seat and fixing	ECE R80	
M2 and M3	components on passenger cars	74/408/EEC (81/577)	
Surface	GB8410 Flammability of automotive interior material	95/28/EEC (M3)	
		ECE R118	

Interior trimming material: Implementation rules for compulsory certification of motor vehicle products - interior trimming material (CNCA-02C-060:2005)

This covers interior trimming used in vehicles made of single or laminated organic materials including floor coverings, seat coverings and all the decorative boards. Seat belts, armrests and active folding roofs are not covered. Safety testing investigates burning behaviour.

The implementation rule sets out very detailed requirements for thickness and size of the materials, and this can often cause some uncertainty if the material needs CCC or not. Any questions can be clarified with the CQC or CCAP.

Mandatory standards			
Product	GB standard	International standards	
Interior trimming material	GB8410 Flammability of automotive interior materials	95/28/EEC(M3) ECE R118	

Rear view mirror: Implementation rules for compulsory certification of motor vehicle products - rear view mirror for motor vehicles (CNCA-02C-059:2005)

This rule applies to rear view mirrors for categories M and N. The mirror will be tested for reflecting coefficient and impact tests, among others.

Mandatory standards			
Product	GB standard	International standards	
Rear view mirror for motor	GB15084 Motor vehicles-rear view mirrors-	ECE R46	
vehicle	Requirements of performance and installation	71/127/EEC	

Door lock or door hinge: Implementation rules for compulsory certification of motor vehicle products - door lock and door retention components (CNCA-02C-061:2005)

The rule applies to latches and door retention components such as hinges, latches and other supporting means on the side doors of vehicles category M1 and N1.

Mandatory standards			
Product	GB standard	International standards	
Door latch and door hinge for	GB15086 Motor vehicles-door locks and door hinges-	ECE R11	
motor vehicle	Performance requirements and test methods	70/387/EEC	

Fuel tank: Implementation rules for compulsory certification of motor vehicle products – fuel tanks for motor vehicles (CNCA-02C-062:2005)

The rule covers metal and plastic fuel tanks for category M and N motor vehicles fuelled by gasoline or diesel - dual-fuel tanks with LPG and CNG are not within this scope. The testing requirements will depend on the material of the fuel tank. Testing will normally include safety valves, pressure resistance, etc.

Mandatory standards			
Product	GB standard	International standards	
Fuel tank of motor vehicle	GB18296 Safety property requirements and test	FMCSA 393 Subpart E	
	methods for	ECE R34	
	automobile fuel tank	70/221/EEC	

Brake hose: Implementation rules for compulsory certification of motor vehicle products - brake hose for motor vehicles (CNCA-02C-057:2005)

Covers hydraulic, air pressure and vacuum brake hose assemblies used by vehicles, trailers, motorcycles and mopeds. Sampling size will depend on the type of technology.

Mandatory standards				
Product	GB standard	International standards		
Braking hose	GB16897 Brake hose for motor vehicles	FMVSS 106		

Safety belts: Implementation rules for compulsory certification of motor vehicle products – safety belts (CNCA-02C-026:2001)

This rule covers safety belts for class M and N vehicles. Testing is on performance of straps, buckles, fire resistance, etc. Normally sampling size includes four sets of safety belt assemblies and 20-metres of straps.

Mandatory standards			
Product	GB standard	International standards	
Safety belts	GB 14166 Performance requirements and test methods	ECE R16:1993	
	for safety belt assembly	FMVSS 106	
	GB 8410 Flammability of automotive interior materials	95/28/EEC(M3)	
	QC 244 Dynamic performance requirements and test	ECE R118	
	methods for safety belt		

Tires: Implementation rules for compulsory certification of motor vehicle products – tire products (CNCA-03C-027:2001)

This rule applies to radial and diagonal tyre products for passenger cars, trucks and motorcycles. The implementation rule lists the various standardisation requirements both for tire certification and for critical spare parts, such as inner tubes and valves.

Mandatory standards			
Product	GB standard	International standards	
Passenger car tire	GB 9743	NA	
	GB/T2978		

Safety glass: Implementation rules for compulsory certification of motor vehicle products – (CNCA-04C-028:2001)

This rule applies to all kinds of safety glass used in vehicles, buildings and railway rolling stock, including laminated glass A/B used as windscreens in vehicles, zone-toughened glass for windscreens, laminated glass A/B or toughened glass used for other than windscreens of vehicles.

Mandatory standards			
Product	GB standard	International standards	
Safety Glass	GB9656	ECE R43:2000	
	GB/T 17340		



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