

KES

Test Method of Air Control Hose

KES T – I896

(EST.) 1991 – 10 – 20

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1. Scope of Application

This standard shall be applied for air control hose (Hose from now on) used for anti pollution system ⁽¹⁾ piping and vacuum control system for automobile.

Note ⁽¹⁾ Air Injection (AI), 2nd Air Supplier, Blow by Gas restoration system.

2. Types and Structures

It shall be divided by their structure and usage as table 1.

Table 1

Types	Symbols	Structures	Classification by usage					
			Oil resistance		Heat resistance temperature			Condition
			Yes	No	100	120	130	
Type 1 DA	R-DA710-Y121	Single layer hose		0			0	Moderate
Type 1 CG	R-CG610-Y121		0			0		
Type 1 BG	R-BG607-Y121		0		0			
Type 2 DG	R-DG710-Y122	Type 2 hose with in / outside surface	0				0	Severe
Type 2 BG	R-BG710-Y122		0		0			

- Remark :** 1. The material symbols shall be as KES B-L005 (Rubber material) regulates.
2. Regulation of KES T-L154 (Performance test of fuel fluid resistance rubber hose) can be used as the same scope of performance.

3. Performance

Follow the testing method, 7.1.1 ~ 7.1.6, and it shall be proper to the regulation on table 2.

Table 2

Testing items		Standard values					Testing method
		Type1 DA	T ype1 CG	Type1 BG	Type2 DG	Type2 BG	
Pressure resistance character- istic	Water pressure	There shall be no water leakage and partial swelling.					7.1.1
	Failure	More than 1			More than 3		
	Outside diameter change rate by negative pressure (%)	In -20					
Coefficient state	Curving character	There shall be no cracks and oil leakage.					7.1.2
	Drawing character kgf	More than 5					
	Cover swelling resistance character	—	There shall be no cover swelling.				
Curving (Crumpled amount of bent hose outside diameter)		It shall be in the tolerance on table 4.					7.1.3
Heat aging resistance specified temperature x 200h (100 °C, 120 °C, 130 °C)		There shall be no cracks and other problems.					7.1.4
Coldness resistance -40 ± 1 °C							7.1.5
Ozone resistance 100 ± 5 pphm x 72 hrs							7.1.6

Note ⁽²⁾ The condition of negative pressure test for hose shall be -250 mmHg x 30 sec.

- Remark** : 1. It is possible to replace with straight hose, if it is impossible to do the test regulated by curved hose.
2. The standard values, testing method change and addition of testing items can be done if needed.

4. Physical Performance

Follow the testing method, 7.2.1 ~ 7.2.7, and it shall be proper to the regulation on table 3.