

KES

**Cold-Rolled High Tensile Strength
Steel Plates, Sheets and Strip**

KES B-A007A

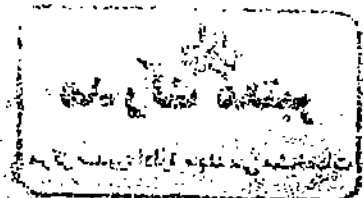
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KIA MOTORS



1. Scope of Application

This standard specifies the cold-rolled high tensile strength steel plates, sheets and strip (Hereinafter referred to as "steel plates and strip").

2. Kind and Symbol

The kind and Symbol of the steel plates and strip shall be the same as shown in Table 1.

Table 1

Kind	Symbol	Main usage
Kind 1	SHCP 35	For good pressing work in addition to strength
Kind 2	SHCP 40	
Kind 3	SHCP 45	
Kind 4	SHCP 50	
Kind 5	SHCP 55	
Kind 6	SHCP 60	
Kind 7	SHCP 80	
Kind 8	SHCP 100	

Remark: In case of zinc-coating, "-Z" shall be suffixed to material symbol.

Example: SHCP 45-Z

3. Chemical Element

The chemical element shall be determined through the agreements between KIA and manufacturer so as to satisfy the requirement of weldability.

4. Mechanical Properties

The tensile strength, yielding point and elongation shall conform to as shown in Table 2.

Table 2

Kind	Current Symbol	Altered symbol	Tensile Test				Test piece
			Tensile Strength kgf/mm ²	Yielding Point kgf/mm ²	Elongation %		
					Thickness t mm		
					t < 1.0	1.0 ≤ t ≤ 1.6	
Kind 1		SHCP 35	≥ 35	≥ 21	(≥ 35)	(≥ 36)	No. 5 at right angle to rolling direction
Kind 2	HPC 40	SHCP 40	≥ 40	≥ 24	(≥ 30)	(≥ 31)	
Kind 3	HPC 45	SHCP 45	≥ 45	≥ 28	(≥ 26)	(≥ 27)	
Kind 4	HPC 50	SHCP 50	≥ 50	≥ 32	(≥ 23)	(≥ 24)	
Kind 5	HPC 55	SHCP 55	≥ 55	≥ 36	(≥ 20)	(≥ 21)	
Kind 6	HPC 60	SHCP 60	≥ 60	≥ 40	(≥ 17)	(≥ 18)	
Kind 7		SHCP 80	≥ 80	(Y.R ≤ 0.7)	(≥ 14)	(≥ 15)	
Kind 8		SHCP 100	≥ 100	(Y.R 0 ≤ 75)	(≥ 9)	(≥ 10)	

Remark: Value in () is for reference.

5. Standard Thickness

The standard thickness of the steel plates and strip shall be as shown in Table 3.

Table 3

Standard Thickness mm						
0.7	0.8	0.9	1.0	1.2	1.4	1.6

Remark: Thickness, 0.6mm and 2.0mm also may be used as standard according to the agreement between KIA and manufacturer.

Standard Quoted: JASO standard (M 108 - 77)