

KES

Workability Evaluating
Standard of Plastic
Bumper Hydrocarbon
Family Cleaner

KES S – S612

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1. Scope of Application

This standard shall specify testing method for hydrocarbon family cleaner used in pre-treating Line of plastic bumper painting factory of our company.

2. Contents of Test

Contents of test are same to following table 1.

Table 1

Contents		Testing method
Quality of cleaning		Refer 5 th clause
Quality of drying		Refer 6 th clause
Quality of drying stain		Refer 7 th clause
Quality of liquid cut ease		Refer 8 th clause
Quality of liquid aging		Refer 9 th clause
Quality of Packing material aging		Refer 10 th clause
Stink strength (Smell)		Refer 11 th clause
Evaluation after painting	Appearance	Refer 12.1 th clause
	Quality of initial attaching	Refer 12.2 th clause
	Water-proof	Refer 12.3 th clause

3. General Condition of Test

3.1 Take place to test as room, which has no direct ray of light and no fire and has no gas, steam, dust and etc, which have bad effect on test, and has ventilation as long as there is no special order.

3.2 Temperature of liquid is tested at 10°C in case of environmental temperature type and by heating in case of heating type through considering Line condition of winder.

3.3 Selection of specimen material

Specimen material	Material	Surface
Bumper	Real bumper produced in plastic factory of Kia Motor Corp.	One which is cleaned with solvent and has a little flaw comparatively

4. Report of Testing Result

Report testing result based on Evaluation item of each testing method.

5. Quality of cleaning

5.1 Purpose

Inspect in order to find cleaning effect, that is Etching (Swelling) of bumper surface and etc as cleaner.

5.2 Test tools

- (1) Luster meter
- (2) Spray Gun (Suction type)

5.3 Testing Method

- (1) Select region of evaluation charging bumper and Check 60° initial luster and thereafter mark region.
- (2) Fill arbitrary cleaning liquid in suction type Gun and thereafter Spray to bumper(Cleaning).
- (3) Check 60° luster after cleaning and calculate falling rate of luster.

$$\text{Falling rate of luster (\%)} = \frac{\text{Luster after cleaning}}{\text{Luster before cleaning}} \times 100$$

5.4 Evaluation

Falling rate of luster should be equal or larger than portion of current Line.

6. Quality of drying

6.1 Purpose

Check evaporating speed of surface liquid after cleaning bumper and inspect ease of setting of drying condition and work at the time of appliance to Line.

6.2 Test tools

- (1) Spray Gun (suction type)
- (2) Constant temperature bath
- (3) Stop Watch

6.3 Testing Method

- (1) Deposit P.P specimen of same size in cleaning liquid.
- (2) Put specimen out and dry simultaneously under same temperature condition.
- (3) Check drying speed of evaporating with Stop Watch.

6.4 Evaluation

Drying time should be equal or shorter than portion of current Line