



Report No.	STUCSO020021702864HG
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TEST REPORT

(No Copy Without Permission)

Sample Name : Stainless Steel Kitchen Knife,
Brand: Aktef

Test Category : Entrusted Test

Manufacturer : AKYILDIZ MUTFAK ESYALARI
IMALATI SAN.VE TIC.LTD.STI.

Applicant : TUV Rheinland A.S

Guangzhou STU Hengchuang Testing Service Co., Ltd.



Applicant's Name	: TUV Rheinland A.S
Applicant's Address	: Kozyatagi Mah. Saniye Ermutlu Sok. No:12 Colakoglu Plaza B Blok 34742 Kadikoy Istanbul
Sample Description	: Stainless Steel Kitchen Knife, Brand: Aktef
Sample Quantity	: 20 Pcs
Style/Item No.	: /
Country Of Origin	: Turkey
Order No.	: /
Exported to	: Egypt
Sample Receiving Date	: Feb 17, 2020
Test Period	: Feb 17, 2020 to Feb 27, 2020
Test Requested	: As requested by client: ES 494-2/2011:Requirements for stainless steel and silver-plated cutlery
Test conditions	: Please refer to next page
Test Results	: Please refer to next page

Tested by: _____

Mirror Liu
Test Engineer

Checked by: _____

Luck Huang
Lab Manager

Approved by: _____

Regan Liu
Lab Director

Terry Yang
Lab Manager



ES 494-2/2011			
Clause	Requirement - Test	Result-Remark	Verdict
4.	Materials		P
4.1	General		P
	The cutlery shall be made from materials that enable the finished product to meet all of the performance requirements of this standard.		P
	The cutlery should not under foreseeable conditions of use release any substance likely to be detrimental to health or to have any detrimental organoleptic effects		P
4.2	Metals		P
4.2.1	The composition of metal parts of table cutlery shall be as given in table 1.	See table 1	P
4.2.2	Any parts of table cutlery made of nickel silver (copper zinc nickel alloy) shall be silver-plated (see clause 6)		N/A
4.2.3	Any parts of table cutlery made of stainless steel and claimed to be silver-plated shall conform with the requirements of clause 6.		N/A
5	Construction		P
5.1	Cutlery manufactured from the materials specified in clause 4 shall be so constructed that it meets all of the relevant performance requirements of this standard.		P
5.2	Integrity and consistency and no defects		P
5.2.1	All surfaces shall be free of cracks, flicks and other defects.		P
5.2.2	As far as is practicable, all cutlery shall be straight and symmetrical except when the lack of straightness or symmetry is an intentional feature of the design		P
5.2.3	Identical items within a batch shall, as far as is practicable, show no variation in dimension or form.		P
5.2.4	All edges, including the edges of spoons, forks, ladles and the insiders of fork prongs, shall be free from burrs and the roughness of blanked edges shall have been removed by a suitable operation		P



ES 494-2/2011																			
Clause	Requirement - Test	Result-Remark	Verdict																
5.2.5	Table knives shall be balanced such that when the knife is pivoted on its bolster, or at the junction of the handle and blade if no bolster is present, the handle shall be heavier than the blade.		P																
5.2.6	Compliance with the requirement for 5.2.1 to 5.2.5 shall be checked by touch or by visual inspection.		P																
5.3	Hollow Handle		N/A																
	The seams joining hollow handles together shall be watertight		N/A																
5.4	Knife edges		P																
	The cutting edge of sharpened table knives shall be either scalloped or serrated or shall be whetted to an included angle not greater than 60°.		P																
	The cutting edges of a carving knife blade shall be whetted to an inclined angle not greater than 40° and shall not be thicker than 0,46 mm when measured 1 mm from the external side of the edge.		P																
6	Silver-plated tableware		N/A																
6.1	General		N/A																
	All silver-plated surface shall comply with the requirements of 6.2, 6.3, 6.4 and 6.5.		N/A																
6.2	Average thickness		N/A																
	The average thickness of silver coating on each and every finished item when measured in accordance with the methods described in Annex A (weight of coating) and Annex B (area of coating) shall be as specified in Table 2.		N/A																
	<p style="text-align: center;">Table 2 — Average thickness of classes of silver coating</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Description</th> <th>Symbol</th> <th>Items for frequent use</th> <th>Items for infrequent use</th> </tr> </thead> <tbody> <tr> <td>First class</td> <td>I</td> <td>min. 30 µm</td> <td>min. 17 µm</td> </tr> <tr> <td>Second class</td> <td>II</td> <td>min. 20 µm</td> <td>min. 12 µm</td> </tr> <tr> <td>Third class</td> <td>III</td> <td>min. 10 µm</td> <td>min. 7 µm</td> </tr> </tbody> </table>			Description	Symbol	Items for frequent use	Items for infrequent use	First class	I	min. 30 µm	min. 17 µm	Second class	II	min. 20 µm	min. 12 µm	Third class	III	min. 10 µm	min. 7 µm
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6.3	Local thickness		N/A																
	The minimum local thickness of silver coating on significant surfaces (i.e. those parts of cutlery subject to the greatest wear; see 3.3) shall not be less than 60 % of the average thickness deemed to be on the item.		N/A																



ES 494-2/2011			
Clause	Requirement - Test	Result-Remark	Verdict
	The minimum local thickness shall be measured in accordance with one of the methods specified in ISO 2177, ISO 1463, ISO 3497 or ISO 3543. In case of dispute the thickness shall be measured in accordance to ISO 1463.		N/A
6.4	Minimum hardness of hard silver coatings		N/A
	A silver coating claimed to be hard shall have a minimum hardness of 130 HV, measured after immersion in boiling water for 2 h		N/A
6.5	Adhesion of silver coatings		N/A
	Silver coatings shall show no signs of flaking, blistering or peeling when the cutlery is ball burnished for 40 min in a burnishing machine as described in Annex E.		N/A
	Alternative methods of determining the adhesion of silver coatings can be used, provided the results obtained are in correlation with those given by ball burnishing		N/A
7	Performance requirements		P
7.1	Resistance to corrosion		P
7.2	Strength		P
7.2.1	Knives with martensitic stainless steel blades and carving forks		N/A
7.2.2	Spoons, forks, ladles and unsharpened knives		P
7.3	Firmness of handle attachment		P
7.4	Hardness of knife blades		P

Abbreviation: P = Pass; F = Fail; N/A = Not Applicable

Note: All test results are only valid for the samples being tested.

**Table 1: Chemical Composition Analysis:**

Test Method: JIS G1253:2002, AMD.1:2013

Test Item	Unit	Result		Limit	Conclusion
		No.1	No.2		
C	%	0.04	0.05	≤ 0.17	PASS
P	%	0.13	0.12	≤ 0.45	PASS
S	%	0.003	0.003	≤ 0.015	PASS
Ni	%	9.9	9.8	≥ 8	PASS
Cr	%	18.6	18.5	≥ 17	PASS
Mn	%	3.62	3.59	≤ 10.5	PASS
Mo	%	1.21	1.19	≤ 2	PASS

Test Sample Information:

No.	Sample Description	Model No.
1.	Stainless steel spoon	/
2	Stainless steel knife	/

See figures 1 to 2 as shown

APPENDIX

PHOTO OF THE SUBMITTED SAMPLE(S)



Figure 1



Figure 2

STU authenticate the photo(s) on original report only

.....END OF REPORT.....



EXPLANATION

1. The inspection reports would be invalid without stamp for inspection report.
2. The copy of inspection reports would be invalid without added inspection report or inspection unit stamp.
3. The inspection report would be invalid without signatures.
4. If there is any objection to the inspection reports, please claim to inspection unit in 15 days. Any claim later than 15 days will not be considered.
5. This authorized test is executed according to client's application requirement.
The inspection report would be invalid if altered.
6. The report is only responsible for the given samples.