

Client:**Artekya Danışmanlık Ar-Ge Tekst. Mak.San. Ve Tic. Ltd. Şti.****Attention to: R&D / Hakan AYDIN**

IOSB Heskop Industrial Plant M10-189

Basaksehir-Istanbul-TURKEY

Report No. 27135791 003**Buyer** /

Test item: Nasiol ZR53 Coated Automotive Metal Sheet

Agent/Manufacturer: /

Article No./ Item No.: 6913-1

Color names: /

Condition at delivery: No claim

Date of delivery: 06.03.2017

Test period: 06.03.2017 – 13.03.2017

Test scope: Parameters selected by customer

Test specification: Pencil hardness testing according to ISO 15184:2012

Remark: Revised of test report 27135791 002 dated 16.03.2017; sample photo has been removed from the test report upon client's request. Test item name has been changed upon client's request. Comments at the test result have been added and corrected. The preceding report is no longer valid.

Test result: See Results

For and on behalf of**TÜV Rheinland Uluslararası Standartlar Sertifikasyon ve Denetim A.Ş**

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*The results given in this report belong to the received sample by vendor.**This test report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid.**The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following, pages which are part of this report.*

1. List of Materials

Material No	Article	Article name	Material	Colour
M001	1	Nasiol ZR53 Coated Automotive Metal Sheet	Metal	-

2. Results

Pencil Hardness

M001																			
SOFTER										HARDER									
9B	8B	7B	6B	5B	4B	3B	2B	B	HB	F	H	2H	3H	4H	5H	6H	7H	8H	9H
			-																X

*Pencil Hardness: 9H

*Test has been started with 6B.

*Nasiol ZR53 has been applied to automotive metal sheet.

*'Derwent' branded graduated pencil has been used for testing.

* No permanent intrusion / notch formed on the sample surface.

* Protective film has not been deteriorated, no visible scratches.

3. Summary of methods

Pencil Hardness	Standard: ISO 15184	Issue date: 2012
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Method description: Determining the film hardness by pushing pencils of known hardness over the film.

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