galvanofinish srl
Via Brughiere, 19
28017 San Maurizio d'Opaglio –NO-
Tel. 0039-0322-915889 Fax. 0039-0322-915933
P.IVA 01644030031

Rport N. 1629
Date issued: 09/07/2015

TEST REPORT
Metals leaching test DIN 10531

Date in: 03/07/2015

Client: CAFFITALY SYSTEM S.p.A.
Adress: Via Panigali, 38 – 40041 Gaggio Montano – BO- Italia
To the kind attention of Mr. Casiddu and Mr. Mazzilli

Manufacturer Name: CAFFITALY SYSTEM S.p.A.
Address (if different):

Description of samples: N.1 Professional Coffee Machine in two groups with capsules Model S 9001 Serial Number S90010150600015

The sample was submitted (mailed) to Galvanofinish by the client.
Sample condition when received (normal, abnormal, departure from standard condition): normal

Scope and purpose of the testing: This report describes results of the test performed on n.1 Professional Coffee Machine in two groups with capsules Model S 9001 Serial Number S90010150600015 to verify its compliance to the requirements of metals leached in according with DIN 10531 "*Food Hygiene- Production and dispense of hot beverages from hot beverages appliances-Hygiene requirements, migration test.*"

Concluding summary statement
The sample tested submitted by CAFFITALY SYSTEM S.p.A. **COMPLIED WITH** limits imposed by DIN 10531 concerning Nickel and Lead leaching. The Coffee Machine can be considered in compliance with Regulation n. 1935/2004 CE.

We certify that all portions of each test performed were under continuous, direct supervision of Galvanofinish lab and that this report is a true report of results from our tests of this material.

dott.sa Paola Zeffiretti
Lab Director

Firmato digitalmente da
Paola Zeffiretti
O = Ordine Chimici Piemonte e Val D Aosta/80097230017
T = Chimico
C = IT

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PREPARATION OF TEST SAMPLES

The Coffee Machine has been installed and equipped as indicated by manufacturer .

EXTRACTION WATER

Extraction water has been prepared following DIN 10531 §4.4.2.2:

- Sodium Bicarbonate 1,2 g/l
- Magnesium Sulfate Heptaydrate 0,7 g/l
- Calcium Chloride Dihydrate 1,2 g/l

500 ml of the solution so prepared have been diluted to a final volume of 10 liters. The pH value of the final solution was = 7,5 and total hardness around 0,53 mmol/l.

EXPOSURE AND COLLECTING OF EXTRACTION WATER

Soon after sampling water has been stored in PTFE bottles and Nitric Acid was added to preserve samples till the analysis.

EVALUATION OF THE CONCENTRATION OF LEACHED METALS

To verify the presence of metals leached from the Coffee Machine, extraction water was put in the storage tank. Once switched on and reached the working temperature (the Machine suggest automatically the proper time), 120 ml of water have been collected from left coffee dispenser, 120 ml were collected from hot water dispenser and steam has been gurgled in 100 ml of extraction water for 45 seconds.
Then Coffee Machine has been left in stand-by for 24 hours, after this period another sample has been collected from each dispenser in the same way as for the first sampling.

After this first steps of collecting a 2Decalcification" process has been performed.
For Coffee dispenser the machine automatic method has been followed. For hot water and steam dispenser Decalcification has been made manually, following manufacturer instruction.
The employed product has been furnished by the manufacturer (Decalcifier for Caffitaly System espresso coffee machines). Two packages of 250 ml each have been used (one for coffee dispenser and one for hot water and steam). After decalcification and rinsing a third sample has been collected from each dispenser in the same way used before.

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APPLIED STRUMENTATION

Atomic Adsorbition Spectromer with Graphite Furnace 240Z Agilent Serial n. MY13270001

ANALYSIS RESULTS ABOUT LEAD AND NICKEL CONCENTRATION:

Sample collected from **Coffee Dispenser**:

Element	Measure Unit	**Found value after the first supply**	**Found value after 24 hours in stand-by**	**Found value after Decalcification process**	Limit value DIN 10531 §4.4.2.4
Lead	mg/l	**0,00030**	**0,00006**	**0,00017**	0,05
Nickel		**0,00446**	**0,00877**	**0,01265**	0,1

Sample collected from **Hot water dispenser**:

Element	Measure Unit	**Found value after the first supply**	**Found value after 24 hours in stand-by**	**Found value after Decalcification process**	Limit value DIN 10531 §4.4.2.4
Lead	mg/l	**0,00518**	**0,00407**	**0,00896**	0,05
Nickel		**0,03362**	**0,05609**	**0,07620**	0,1

Sample collected from **Steam dispenser**:

Element	Measure Unit	**Found value after the first supply**	**Found value after 24 hours in stand-by**	**Found value after Decalcification process**	Limit value DIN 10531 §4.4.2.4
Lead	mg/l	**0,00231**	**0,00326**	**0,01353**	0,05
Nickel		**0,04155**	**0,03718**	**0,00299**	0,1

REMARKS: FOR YOU INFORMATION ONLY