

## TEST REPORT

TEST REPORT NUMBER : TURR160014672 DATE: 29 January, 2016

APPLICANT: Mutlusan Plastik Elektrik San.ve Tic.A.Ş.

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SAMPLE DESCRIPTION Ø20 Grey ltF Spiral Pipe HF spiral pipe

DATE IN : 28 /January /2016 (11:47)

DATE OUT : 29 / January /2016

REQUEST : RoHS Test was performed according to 2011/65/EU Directive.

RESULTS : SEE ATTACHMENT

CONCLUSION :

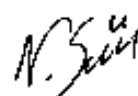
Testing Item	Conclusion
Sample	PASS

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Volkan Albayrak  
Coordinator



Neslihan Sözer  
Chemical Laboratory Manager

(A) TEST RESULT SUMMARY ACCORDING TO IEC 62321 : 2008  
Electrotechnical Products-Determination of Levels of Six Regulated Substances

TESTING ITEM	RESULT
	<b>Sample</b>
Cadmium (Cd) Content	ND
Chromium VI (Cr+6) Content (ppm) (for non metal)	ND
Chromium VI (Cr+6) Content (µg/cm <sup>2</sup> ) (for metal)	NA
Chromium VI (Cr+6) Result (By spot test on metal)	NA
Lead (Pb) Content	ND
Mercury (Hg) Content	ND
Flame Retardants	
<b>Polybrominated Biphenyls (PBB)</b>	<b>ND</b>
Monobromobiphenyl (MonoBB)	ND
Dibromobiphenyl (DiBB)	ND
Tribromobiphenyl (TriBB)	ND
Tetrabromobiphenyl (TetraBB)	ND
Pentabromobiphenyl (PentaBB)	ND
Hexabromobiphenyl (HexaBB)	ND
Heptabromobiphenyl (HeptaBB)	ND
Octabromobiphenyl (OctaBB)	ND
Nonabromobiphenyl (NonaBB)	ND
Decabromobiphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDE)</b>	<b>ND</b>
Monobromodiphenyl Ether (MonoBDE)	ND
Dibromodiphenyl Ether (DiBDE)	ND
Tribromodiphenyl Ether (TriBDE)	ND
Tetrabromodiphenyl Ether (TetraBDE)	ND
Pentabromodiphenyl Ether (PentaBDE)	ND
Hexabromodiphenyl Ether (HexaBDE)	ND
Heptabromodiphenyl Ether (HeptaBDE)	ND
Octabromodiphenyl Ether (OctaBDE)	ND
Nonabromodiphenyl Ether (NonaBDE)	ND
Decabromodiphenyl Ether (DecaBDE)	ND

Remarks : ppm=Parts per million based on dry weight of sample  
µg/cm<sup>2</sup>=Microgram per square centimetre  
mg/kg with 50 cm<sup>2</sup>=Milligram per kilogram with 50 square centimetre  
ND =Not detected NA =Not applicable NR =Not requested

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**(B) REQUIREMENT:**

SUBSTANCE	LIMITS
Cadmium (Cd) Content	0.01 % (100 ppm)
Chromium VI (Cr+6) Content (ppm) (for non - metal)	0.1 % (1000 ppm)
Chromium VI (Cr+6) Content (µg/cm <sup>2</sup> ) (for metal)	
Chromium VI (Cr+6) Result (By spot test on metal)	NEGATIVE
Lead (Pb) Content	0.1 % (1000 ppm)
Mercury (Hg) Content	0.1 % (1000 ppm)
Flame Retardants	0.1 % (1000 ppm)

**(C) TEST METHOD :**

Testing Item	Testing Method	Reporting Limit
Cadmium (Cd)Content	With reference to IEC 62321:2008,by acid digestion and determined by ICP-OES	2 ppm
Lead (Pb)Content	With reference to IEC 62321:2008,by acid digestion and determined by ICP-OES	2 ppm
Mercury (Hg)Content	With reference to IEC 62321:2008,by acid digestion and determined by ICP-OES	2 ppm
Chromium VI (Cr6+)(For non-metal)	With reference to IEC 62321:2008,by alkaline digestion and determined by UV-VIS spectrophotometer	1 ppm
Chromium VI (Cr6+)(For metal)	With reference to IEC 62321:2008,by SPOT TEST	1 ppm (IN TESTING SOLUTION)
Chromium VI (Cr6+)(For metal)	With reference to IEC 62321:2008 ,by boiling water extraction and determined by UV-VIS spectrophotometer	0.02 mg/kg with 50 cm <sup>2</sup> (IN TESTING SOLUTION)
PBBs/PBDEs	With reference to IEC 62321:2008,by solvent extraction and determined by GC/MS and HPLC	5 ppm



**## END OF TEST REPORT ##**