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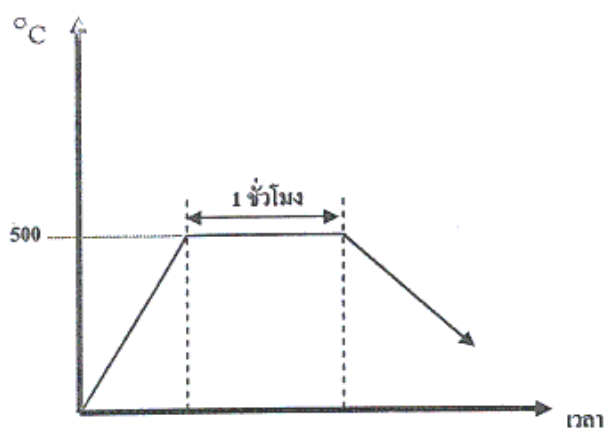
Subject : Testing Report of product's properties

Manager: RUNGIARASSANG ELECTRIC LIMITED PARTNERSHIP

Attachment: 1. The list of 316 items of tested specimens.
2. The photographs of 316 tested specimens.

The steel and cast iron products of RUNGIARASSANG ELECTRIC LIMITED PARTNERSHIP consisted of conduits, couplings, pipes, locknuts, clamps, connectors, various types of boxes, bushings and others altogether 316 items under the brand name "ABSO" (Attachment 1) were tested the heat resistant property by the Institute for Scientific and Technological Researches and Services, KMUTT. The result is the following:

The heat resisting property of 316 items of the products from RUNGIARASSANG ELECTRIC LIMITED PARTNERSHIP under the brand name "ABSO" was done by using resistant heating coil electric furnace containing thermocouple for measuring heating temperature. The testing were performed by heating all items until the temperature reached to 500°C and continued to heat for another one hour. After heating, the samples were cooled in the furnace until the temperature decreased to room temperature and then were inspected visually. The heating diagram was shown as below:



From visual inspection, the result shows that all 316 items of the products from RUNGJARASSANG ELECTRIC LIMITED PARTNERSHIP under the brand name "ABSO" are able to resist the temperature at 500°C without changing in shape and size as shown in the following photographs.(Attachment 2)

Sincerely yours,

(Mr. Chainarint Juntawongso)

Lecturer responsible for testing.

(Mr. Anun Rungpornravewat)

Director Institute for Scientific and
Technological Research and Services

เอกสารแนบ (Attachment 1)

THE LIST OF 316 PASSED – TEST ITEMS FROM RUNGJARASSANG ELECTRIC LIMITED PARTNERSHIP

<u>MILD STEEL, HOT-DIP GALVANIZED</u>		
1	1 EA.	ELBOW E.M.T. 2"
2	1 EA.	ELBOW I.M.C. 1/2"
3	1 EA.	ELBOW I.M.C. 1 1/2"
4	1 EA.	ELBOW I.M.C. 2"
5	1 EA.	ELBOW I.M.C. 2 1/2"
6	1 EA.	ELBOW I.M.C. 3"
7	1 EA.	ELBOW I.M.C. 3 1/2"
8	1 EA.	ELBOW I.M.C. 4"
9	1 EA.	ELBOW R.S.C. 3/4"
10	1 EA.	ELBOW R.S.C. 3"
11	1 EA.	CONDUIT E.M.T. 1/2"
12	1 EA.	CONDUIT E.M.T. 3/4"
13	1 EA.	CONDUIT E.M.T. 1"
14	1 EA.	CONDUIT E.M.T. 1 1/2"
15	1 EA.	CONDUIT E.M.T. 2"
16	1 EA.	CONDUIT I.M.C. 1/2"
17	1 EA.	CONDUIT I.M.C. 3/4"
18	1 EA.	CONDUIT I.M.C. 1"
19	1 EA.	CONDUIT I.M.C. 1 1/4"
20	1 EA.	CONDUIT I.M.C. 1 1/2"
21	1 EA.	CONDUIT I.M.C. 2"
22	1 EA.	CONDUIT I.M.C. 2 1/2"
23	1 EA.	CONDUIT I.M.C. 3"
24	1 EA.	CONDUIT I.M.C. 3 1/2"
25	1 EA.	CONDUIT I.M.C. 4"
26	1 EA.	CONDUIT R.S.C. 1/2"
27	1 EA.	CONDUIT R.S.C. 3/4"
28	1 EA.	CONDUIT R.S.C. 1"
29	1 EA.	CONDUIT R.S.C. 1 1/4"
30	1 EA.	CONDUIT R.S.C. 1 1/2"
31	1 EA.	CONDUIT R.S.C. 2"

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32	1 EA.	CONDUIT R.S.C. 2 1/2"
33	1 EA.	CONDUIT R.S.C. 3"
34	1 EA.	CONDUIT R.S.C. 3 1/2"
35	1 EA.	CONDUIT R.S.C. 4"
36	1 EA.	COUPLING I.M.C. 1/2"
37	1 EA.	COUPLING I.M.C. 3/4"
38	1 EA.	COUPLING I.M.C. 1"
39	1 EA.	COUPLING I.M.C. 1 1/4"
40	1 EA.	COUPLING I.M.C. 1 1/2"
41	1 EA.	COUPLING I.M.C. 2"
42	1 EA.	COUPLING I.M.C. 3 1/2"
43	1 EA.	COUPLING I.M.C. 4"
44	1 EA.	COUPLING R.S.C. 1"
45	1 EA.	COUPLING R.S.C. 1 1/4"
46	1 EA.	COUPLING R.S.C. 1 1/2"
47	1 EA.	COUPLING R.S.C. 2 1/2"
48	1 EA.	COUPLING R.S.C. 3"
49	1 EA.	COUPLING R.S.C. 3 1/2"
50	1 EA.	COUPLING R.S.C. 4"
51	1 EA.	COUPLING R.S.C. 5"
52	1 EA.	COUPLING R.S.C. 6"

MILD STEEL, HOT-DIP GALVANIZED

53	1 EA.	LOCKNUT 1/2"
54	1 EA.	LOCKNUT 3/4"
55	1 EA.	LOCKNUT 1"
56	1 EA.	LOCKNUT 1 1/4"
57	1 EA.	LOCKNUT 1 1/2"
58	1 EA.	LOCKNUT 2"
59	1 EA.	LOCKNUT 2 1/2"
60	1 EA.	LOCKNUT 3"
61	1 EA.	LOCKNUT 3 1/2"
62	1 EA.	LOCKNUT 4"
63	1 EA.	BUSHING 1/2"

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For the purpose of material procurement, use the designations in the same manufacturer.

64	1 EA.	BUSHING 3/4"
65	1 EA.	BUSHING 1"
66	1 EA.	BUSHING 1 1/4"
67	1 EA.	BUSHING 1 1/2"
68	1 EA.	BUSHING 2"
69	1 EA.	BUSHING 2 1/2"
70	1 EA.	BUSHING 3"
71	1 EA.	BUSHING 3 1/2"
72	1 EA.	BUSHING 4"
73	1 EA.	PIPE CLAMP E.M.T. 1/2"
74	1 EA.	PIPE CLAMP E.M.T. 3/4"
75	1 EA.	PIPE CLAMP E.M.T. 1"
76	1 EA.	PIPE CLAMP E.M.T. 1 1/4"
77	1 EA.	PIPE CLAMP E.M.T. 1 1/2"
78	1 EA.	PIPE CLAMP E.M.T. 2"
79	1 EA.	PIPE CLAMP R.G. 1/2"
80	1 EA.	PIPE CLAMP R.G. 3/4"
81	1 EA.	PIPE CLAMP R.G. 1"
82	1 EA.	PIPE CLAMP R.G. 1 1/4"
83	1 EA.	PIPE CLAMP R.G. 1 1/2"
84	1 EA.	PIPE CLAMP R.G. 2"
85	1 EA.	PIPE CLAMP R.G. 2 1/2"
86	1 EA.	PIPE CLAMP R.G. 3"
87	1 EA.	PIPE CLAMP R.G. 3 1/2"
88	1 EA.	PIPE CLAMP R.G. 4"
89	1 EA.	SQUARE BOX SHALLOW 4"x 4"x1 1/2"
90	1 EA.	SQUARE BOX DEEP 4"x4"x2 1/8"
91	1 EA.	SQUARE BOX 4 11/16"x4 11/16"x 2 1/8"
92	1 EA.	OCTAGON BOX SHALLOW
93	1 EA.	OCTAGON BOX DEEP
94	1 EA.	HANDY BOX SHALLOW 2"x 4"x1 1/2"
95	1 EA.	HANDY BOX DEEP 2 1/2"x4"x2 1/8"
96	1 EA.	METAL CLAMP MCI
97	1 EA.	COVER FOR SQUARE

98	1 EA.	COVER FOR HANDY
99	1 EA.	RAISED COVER SINGLE DEVICE
100	1 EA.	C-CHANNEL 25x40x1.2M.
101	1 EA.	C-CHANNEL 40x40x1.2M.

MILD STEEL, HOT-DIP GALVANIZED

102	1 EA.	STANDARD CLIP 1/2"
103	1 EA.	STANDARD CLIP 3/4"
104	1 EA.	STANDARD CLIP 1"
105	1 EA.	STANDARD CLIP 1 1/4"
106	1 EA.	STANDARD CLIP 1 1/2"
107	1 EA.	STANDARD CLIP 2"

MILD STEEL, ELECTRO GALVANIZED

108	1 EA.	CONNECTOR E.M.T. 1/2"
109	1 EA.	CONNECTOR E.M.T. 3/4"
110	1 EA.	CONNECTOR E.M.T. 1"
111	1 EA.	CONNECTOR E.M.T. 1 1/4"
112	1 EA.	CONNECTOR E.M.T. 1 1/2"
113	1 EA.	CONNECTOR E.M.T. 2"
114	1 EA.	COUPLING E.M.T. 1/2"
115	1 EA.	COUPLING E.M.T. 3/4"
116	1 EA.	COUPLING E.M.T. 1"
117	1 EA.	COUPLING E.M.T. 1 1/4"
118	1 EA.	COUPLING E.M.T. 1 1/2"
119	1 EA.	COUPLING E.M.T. 2"
120	1 EA.	LOCKNUT 1/2"
121	1 EA.	LOCKNUT 3/4"
122	1 EA.	LOCKNUT 1"
123	1 EA.	LOCKNUT 1 1/4"
124	1 EA.	LOCKNUT 1 1/2"
125	1 EA.	LOCKNUT 2"
126	1 EA.	LOCKNUT 3"
127	1 EA.	LOCKNUT 4"

128	1 EA.	BUSHING 1/2"
129	1 EA.	BUSHING 3/4"
130	1 EA.	BUSHING 1"
131	1 EA.	BUSHING 1 1/4"
132	1 EA.	BUSHING 1 1/2"
133	1 EA.	BUSHING 2"
134	1 EA.	BUSHING 3"
135	1 EA.	BUSHING 4"
136	1 EA.	PIPE CLAMP E.M.T. 1/2"
137	1 EA.	PIPE CLAMP E.M.T. 3/4"
138	1 EA.	PIPE CLAMP E.M.T. 1"
139	1 EA.	PIPE CLAMP E.M.T. 1 1/4"
140	1 EA.	PIPE CLAMP E.M.T. 1 1/2"
141	1 EA.	PIPE CLAMP E.M.T. 2"

MILD STEEL, ELECTRO GALVANIZED

142	1 EA.	PIPE CLAMP R.G. 1/2"
143	1 EA.	PIPE CLAMP R.G. 3/4"
144	1 EA.	PIPE CLAMP R.G. 1"
145	1 EA.	PIPE CLAMP R.G. 1 1/4"
146	1 EA.	PIPE CLAMP R.G. 1 1/2"
147	1 EA.	PIPE CLAMP R.G. 2"
148	1 EA.	PIPE CLAMP R.G. 2 1/2"
149	1 EA.	PIPE CLAMP R.G. 3"
150	1 EA.	PIPE CLAMP R.G. 3 1/2"
151	1 EA.	PIPE CLAMP R.G. 4"
152	1 EA.	CONDUIT HANGER&CABLE CLAMP 1/2"
153	1 EA.	CONDUIT HANGER&CABLE CLAMP 1"
154	1 EA.	STANDARD CLIP 1/2"
155	1 EA.	STANDARD CLIP 3/4"
156	1 EA.	STANDARD CLIP 1"
157	1 EA.	STANDARD CLIP 1 1/4"
158	1 EA.	STANDARD CLIP 1 1/2"
159	1 EA.	STANDARD CLIP 2"

160	1 EA.	STANDARD CLIP 3"
161	1 EA.	SQUARE BOX SHALLOW 4"X4"X1 1/2" HOLE 1/2"X3/4"X1/2"
162	1 EA.	SQUARE BOX SHALLOW EXTENSION HOLE 1/2"X3/4"X1/2"
163	1 EA.	SQUARE BOX DEEP 4"X4"X2 1/8" HOLE 1/2"X3/4"X1/2"
164	1 EA.	SQUARE BOX DEEP 4"X4"X2 1/8" HOLE 3/4"X1"
165	1 EA.	SQUARE BOX DEEP 4"X4"X2 1/8" EXTENSION HOLE 1/2"X3/4"X1"
166	1 EA.	OCTAGON BOX SHALLOW
167	1 EA.	OCTAGON BOX DEEP
168	1 EA.	HANDY BOX SHALLOW 2"X4"X1 1/2"
169	1 EA.	HANDY BOX DEEP 2"X4"X1 7/8"
170	1 EA.	HANDY BOX SHALLOW 2 1/2"X4"X1 1/2"
171	1 EA.	HANDY BOX DEEP 2 1/2"X4"X2 1/8"
172	1 EA.	STRAP E.M.T. 1/2"
173	1 EA.	STRAP E.M.T. 3/4"
174	1 EA.	STRAP E.M.T. 1"
175	1 EA.	STRAP R.G. 1/2"
176	1 EA.	STRAP R.G. 3/4"
177	1 EA.	STRAP R.G. 1"
178	1 EA.	STRAP R.G. 1 1/4"
179	1 EA.	STRAP R.G. 1 1/2"
180	1 EA.	STRAP R.G. 2"
181	1 EA.	STRAP R.G. 2 1/2"
182	1 EA.	STRAP R.G. 3"
183	1 EA.	STRAP R.G. 3 1/2"
184	1 EA.	STRAP R.G. 4"
185	1 EA.	CONNECTOR E.M.T. RAIN TIGHT 1/2"
186	1 EA.	CONNECTOR E.M.T. RAIN TIGHT 3/4"
187	1 EA.	CONNECTOR E.M.T. RAIN TIGHT 1"
188	1 EA.	COUPLING E.M.T. RAIN TIGHT 1/2"
189	1 EA.	COUPLING E.M.T. RAIN TIGHT 3/4"
190	1 EA.	COUPLING E.M.T. RAIN TIGHT 1"
191	1 EA.	METAL CLAMP MC1
192	1 EA.	METAL CLAMP MC2W

CAST IRON, HOT-DIP GALVANIZED

193	1 EA.	E.Y.S. FITTING 3/4"
194	1 EA.	CONDUIT OUTLET BOX GUAE 1 WAY 1"
195	1 EA.	CONDUIT OUTLET BOX GUAE 1 WAY 1 1/2"
196	1 EA.	CONDUIT OUTLET BOX GUAC 2 WAY 3/4"
197	1 EA.	CONDUIT OUTLET BOX GUAC 2 WAY 2"
198	1 EA.	CONDUIT OUTLET BOX GUAL 2 WAY 1/2"
199	1 EA.	CONDUIT OUTLET BOX GUAL 2 WAY 3/4"
200	1 EA.	CONDUIT OUTLET BOX GUAL 2 WAY 1"
201	1 EA.	CONDUIT OUTLET BOX GUAL 2 WAY 1 1/4"
202	1 EA.	CONDUIT OUTLET BOX GUAL 2 WAY 1"
203	1 EA.	CONDUIT OUTLET BOX GUAL 2 WAY 2"
204	1 EA.	CONDUIT OUTLET BOX GUAT 3 WAY 3/4"
205	1 EA.	CONDUIT OUTLET BOX GUAT 3 WAY 1"
206	1 EA.	CONDUIT OUTLET BOX GUAT 3 WAY 2"
207	1 EA.	CONDUIT OUTLET BOX GUAX 4 WAY 3/4"
208	1 EA.	CONDUIT OUTLET BOX GUAX 4 WAY 1"
209	1 EA.	CONDUIT OUTLET BOX GUAX 4 WAY 1 1/4"
210	1 EA.	ERICKSON COUPLING 1/2"
211	1 EA.	ERICKSON COUPLING 3/4"
212	1 EA.	ERICKSON COUPLING 3/4"
213	1 EA.	ERICKSON COUPLING 1"
214	1 EA.	ERICKSON COUPLING 1 1/4"
215	1 EA.	ERICKSON COUPLING 1 1/2"
216	1 EA.	ERICKSON COUPLING 2"
217	1 EA.	ERICKSON COUPLING 2 1/2"
218	1 EA.	ERICKSON COUPLING 4"
219	1 EA.	ERICKSON COUPLING 5"
220	1 EA.	FLEX CONNECTOR RAIN TIGHT 1/2"
221	1 EA.	FLEX CONNECTOR RAIN TIGHT 3/4"
222	1 EA.	FLEX CONNECTOR RAIN TIGHT 1"
223	1 EA.	FLEX CONNECTOR RAIN TIGHT 1 1/4"
224	1 EA.	FLEX CONNECTOR RAIN TIGHT 1 1/2"

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... of material or products are through made by the same manufacturer

225	1 EA.	FLEX CONNECTOR RAIN TIGHT 2"
226	1 EA.	FLEX CONNECTOR 3/4"
227	1 EA.	O.T. CONDULET 1/2"
228	1 EA.	O.T. CONDULET 3/4"
229	1 EA.	O.T. CONDULET 1"
230	1 EA.	O.T. CONDULET 1 1/4"
231	1 EA.	O.T. CONDULET 1 1/2"
232	1 EA.	O.T. CONDULET 2"
233	1 EA.	O.T. CONDULET 2 1/2"
234	1 EA.	O.T. CONDULET 3 1/2"
235	1 EA.	O.C. CONDULET 3/4"
236	1 EA.	O.C. CONDULET 1"
237	1 EA.	O.C. CONDULET 1 1/4"
238	1 EA.	O.C. CONDULET 2"
239	1 EA.	O.C. CONDULET 2 1/2"
240	1 EA.	O.C. CONDULET 3"
241	1 EA.	T.B. CONDULET 3/4"
242	1 EA.	T.B. CONDULET 1"
243	1 EA.	T.B. CONDULET 1 1/4"
244	1 EA.	T.B. CONDULET 2"

CAST IRON, HOT-DIP GALVANIZED

244	1 EA.	L.R. CONDULET 1/2"
245	1 EA.	L.R. CONDULET 3/4"
246	1 EA.	L.R. CONDULET 1"
247	1 EA.	L.R. CONDULET 1 1/4"
248	1 EA.	L.R. CONDULET 2"
249	1 EA.	L.R. CONDULET 2 1/2"
250	1 EA.	L.R. CONDULET 3"
251	1 EA.	L.L. CONDULET 1"
252	1 EA.	L.L. CONDULET 1 1/4"
253	1 EA.	L.L. CONDULET 2"
254	1 EA.	L.L. CONDULET 2 1/2"
255	1 EA.	L.B. CONDULET 1/2"

256	1 EA.	L.B. CONDULET 3/4"
257	1 EA.	L.B. CONDULET 1"
258	1 EA.	L.B. CONDULET 1 1/4"
259	1 EA.	L.B. CONDULET 1 1/2"
260	1 EA.	L.B. CONDULET 2 1/2"
261	1 EA.	L.B. CONDULET 3"
262	1 EA.	L.B. CONDULET 3 1/2"
263	1 EA.	L.B. CONDULET 4"
264	1 EA.	REDUCING BUSHING 3/4"X1/2"
265	1 EA.	REDUCING BUSHING 1"X3/4"
266	1 EA.	REDUCING BUSHING 1 1/4"X3/4"
267	1 EA.	REDUCING BUSHING 1 1/2"X3/4"
268	1 EA.	REDUCING BUSHING 2"X1/2"
269	1 EA.	REDUCING BUSHING 3"X2 1/2"
270	1 EA.	CIRCULAR JUNDTION BOX CJBC 2 WAY 3/4"
271	1 EA.	CIRCULAR JUNDTION BOX CJBC 2 WAY 1"
272	1 EA.	CIRCULAR JUNDTION BOX CJBL 2 WAY 3/4"
273	1 EA.	CIRCULAR JUNDTION BOX CJBC 2 WAY 3/4" EXTENSION
274	1 EA.	CIRCULAR JUNDTION BOX CJBL 2 WAY 1"
275	1 EA.	CIRCULAR JUNDTION BOX CJBX 4 WAY 3/4"
276	1 EA.	COVER FOR CJB
277	1 EA.	HUB COVER FOR CJB 1/2"
278	1 EA.	HUB COVER FOR CJB 1"
279	1 EA.	HUB COVER FOR CJB 1 1/4"
280	1 EA.	FS 1 GANG 2"X4" 1 WAY 1/2"
281	1 EA.	FSC 1 GANG 2"X4" 2 WAY 1/2" ACROSS
282	1 EA.	FSC 1 GANG 2"X4" 2 WAY 1" ACROSS
283	1 EA.	FSS 1 GANG 2"X4" 2 WAY 1/2" DOUBLE
284	1 EA.	FSCC 1 GANG 2"X4" 3 WAY 3/4"
285	1 EA.	FS 2 GANG 4"X4" 1 WAY 3/4"
286	1 EA.	FS 2 GANG 4"X4" 1 WAY 1"
287	1 EA.	FSS 2 GANG 4"X4" 2 WAY 3/4" ACROSS
288	1 EA.	FSS 2 GANG 4"X4" 2 WAY 1/2" DOUBLE
289	1 EA.	FSD 2 GANG 4"X4" 3 WAY 3/4"

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290	1 EA.	DEVICE BOX 3 1/2"X3 1/2" 1 WAY SCD-1S 1/2"
291	1 EA.	DEVICE BOX 3 1/2"X3 1/2" 1 WAY SCD-1S 3/4"
292	1 EA.	DEVICE BOX 3" X4 1/2" 1 WAY SCD-2S 3/4"

CAST IRON, HOT-DIP GALVANIZED

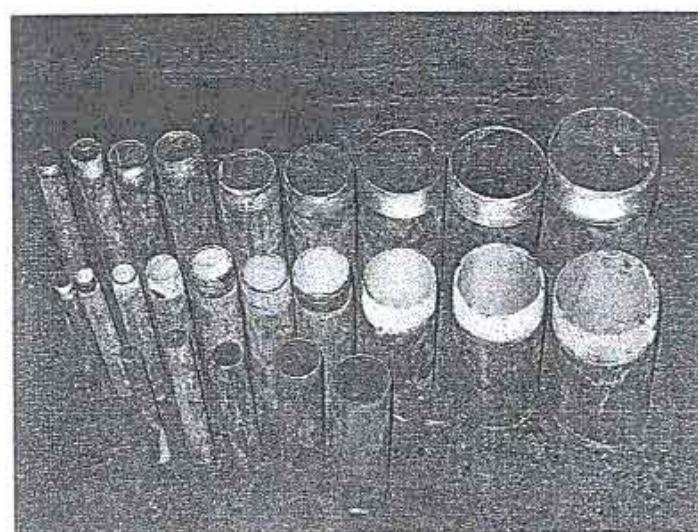
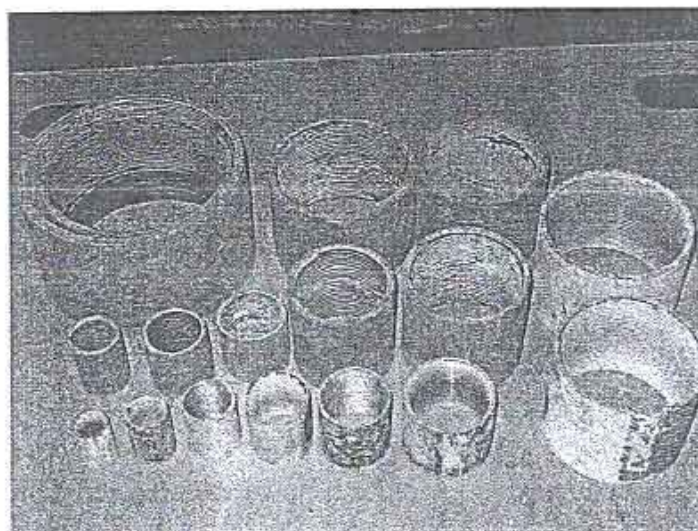
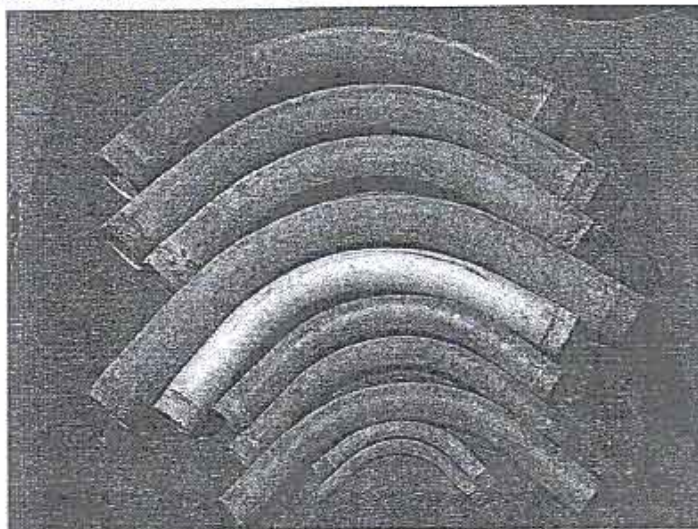
293	1 EA.	CHASE NIPPLE 1/2"
294	1 EA.	CHASE NIPPLE 3/4"
295	1 EA.	CHASE NIPPLE 1"
296	1 EA.	CHASE NIPPLE 1 1/4"
297	1 EA.	CHASE NIPPLE 1 1/2"
298	1 EA.	CHASE NIPPLE 3"
299	1 EA.	THREADED CLOUSE-UP PLUG 1/2"
300	1 EA.	THREADED CLOUSE-UP PLUG 3/4"
301	1 EA.	THREADED CLOUSE-UP PLUG 1"
302	1 EA.	THREADED CLOUSE-UP PLUG 1 1/4"
303	1 EA.	THREADED CLOUSE-UP PLUG 1 1/2"
304	1 EA.	HUB RAIN TIGHT 1/2"
305	1 EA.	HUB RAIN TIGHT 3/4"
306	1 EA.	HUB RAIN TIGHT 1"
307	1 EA.	HUB RAIN TIGHT 1 1/4"
308	1 EA.	HUB RAIN TIGHT 1 1/2"
309	1 EA.	HUB RAIN TIGHT 2"
310	1 EA.	HUB RAIN TIGHT 3"
311	1 EA.	HUB RAIN TIGHT 3 1/2"
312	1 EA.	HUB RAIN TIGHT 4"
313	1 EA.	LOCK NUT 3"
314	1 EA.	LOCK NUT 3 1/2"
315	1 EA.	LOCK NUT 5"
316	1 EA.	LOCK NUT 6"

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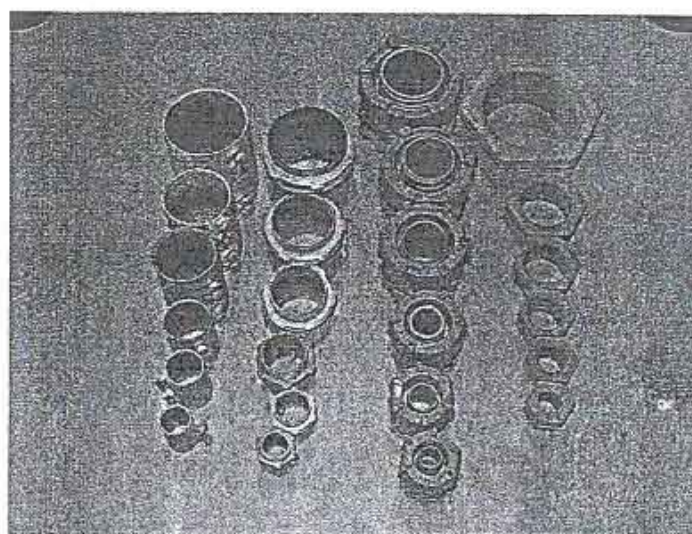
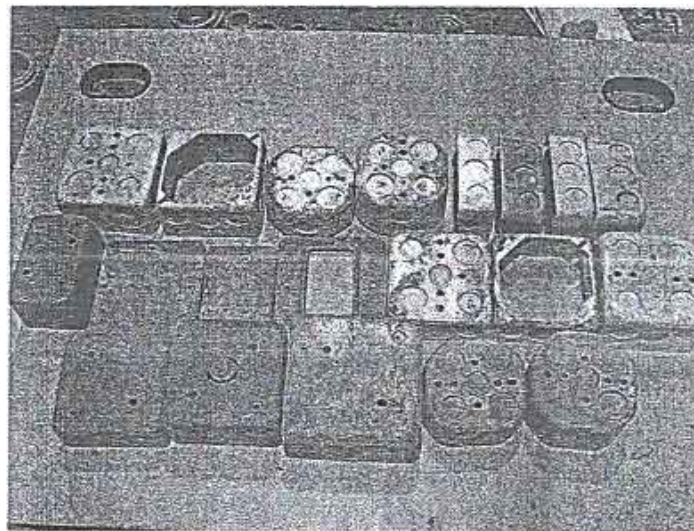
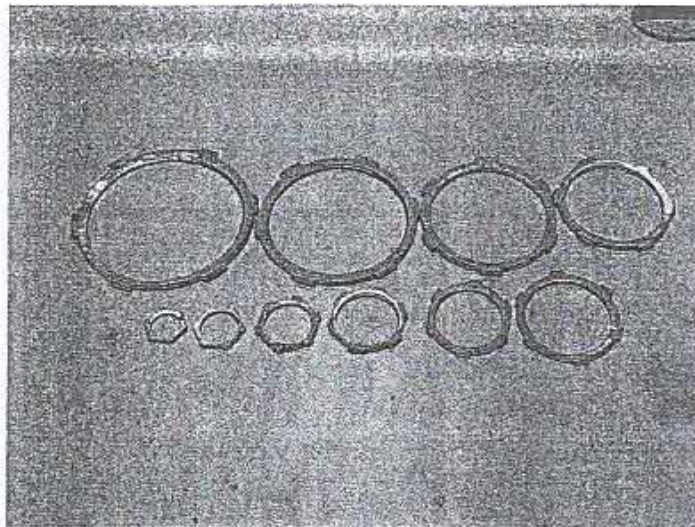
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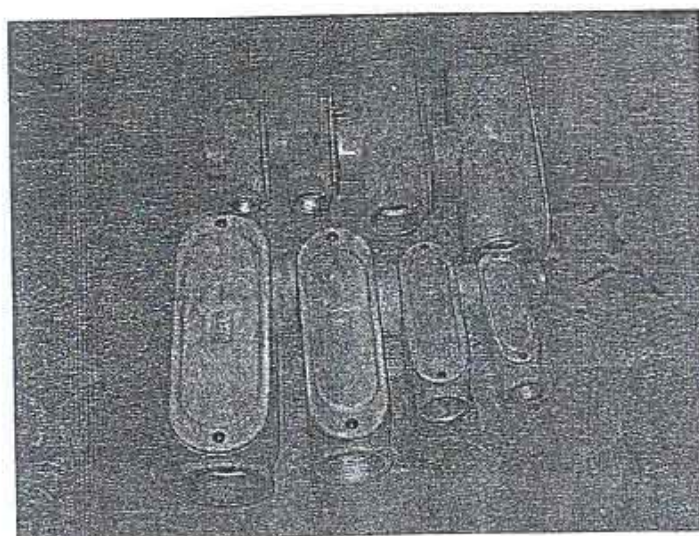
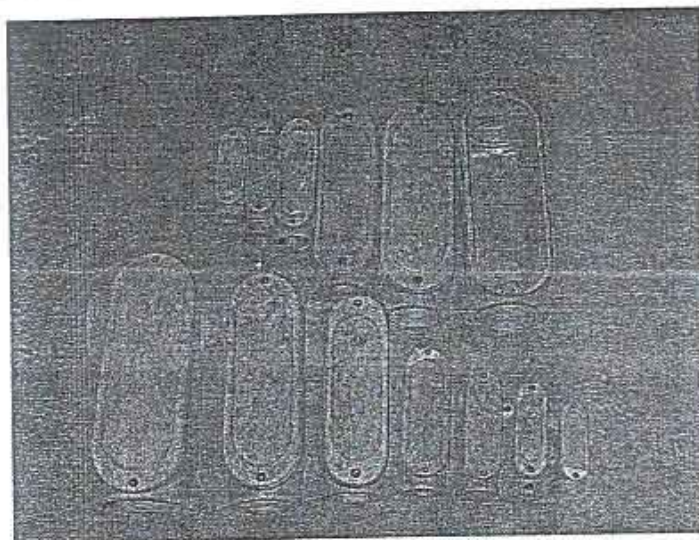
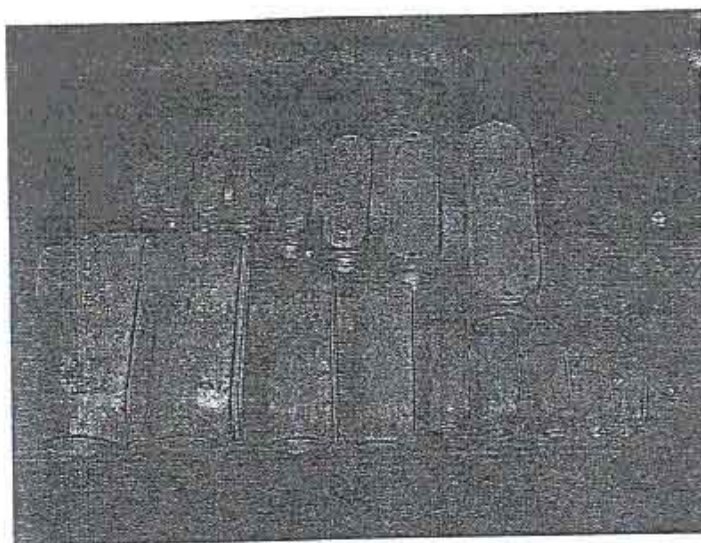
เอกสารที่ 2 (Attachment 2)

THE PHOTOGRAPHS OF PASSED-TEST ITEMS FROM RUNGJARASSANG ELECTRIC LIMITED PARTNERSHIP



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 This report is valid only for the specimens tested. It does not apply to other pieces of material or products even though made by the same manufacturer.





This report is not official unless it carries the raised seal of the university and the genuine authorized signature (8).

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