

MODIFIED ASTM E119
FIRE RESISTANCE TESTING
FOR
DURA-TAPE INTERNATIONAL
ON
BLAZEBLOCKER ICE FIREWALL TAPE
TESTED: MARCH 16, 2009
VTEC #100-3179
REVISION 1.0: AUGUST 5, 2009



VTEC Laboratories Inc.

August 5, 2009

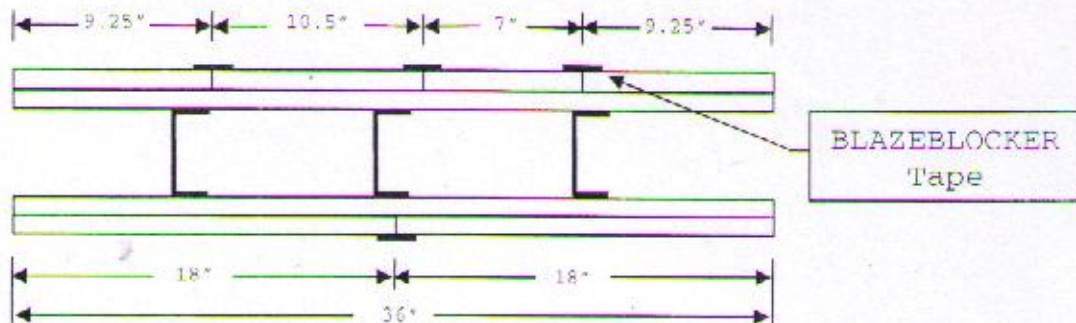
Client: Dura-Tape International
120 Arlington Ave.
Bloomfield, NJ 07003

Attn: Lee A. Goldman

Subject: Fire Resistance Testing According to Modified ASTM E119 Specifications.

SAMPLE DESCRIPTION: BLAZEBLOCKER ICE FIREWALL TAPE

The 36"x36"x6" thick wall panel was fabricated by Dura-Tape International and provided to VTEC Laboratories Inc. for ASTM E119 fire endurance testing. The wall frame was made up of 3 pieces of 3-5/8" metal studs spaced 9" O.C. One layer of 36"x36"x5/8" gypsum board with no seams were attached to each side of the studs using gypsum board screws. On one side of the wall another layer of 5/8" gypsum board was attached with three seams (four equal pieces butt edge to edge vertically). On the other side of the wall another layer of 5/8" gypsum board was attached with one seam (two equal pieces butt edge to edge vertically). The seams between the pieces of gypsum board were covered with BLAZEBLOCKER ICE FIREWALL TAPE tape. The cavity in the frame was left empty. The perimeter of the wall was capped with 3-5/8" steel track. The side with three seams in the gypsum board was exposed to the furnace.



DISCLAIMER: This test should be used to measure and describe the properties of materials, products or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazards or fire risks of materials, products or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment, which takes into account all of the factors which are pertinent to an assessment of fire hazard of a particular end use.

PROCEDURE:

The furnace used in this test measures 3ft x 3ft x 3ft. The outside construction is steel and the furnace is lined with a ceramic refractory insulation. The furnace dimensions inside the insulation are nominally 27" x 27" x 27". A single burner is centered vertically in the wall opposite the sample. This burner is rated for 1.5 million Btu/hr and is of the flat flame or non-impinging flame design. Furnace conditions are monitored by three Inconel-sheathed chromel-alumel thermocouples. These thermocouples are positioned 6" from the face of the sample.

The sample was oriented vertically in the front opening of the furnace. The unexposed surface temperature of the sample was monitored by six, 20 gauge type K, fiberglass sheathed thermocouples. An insulating pad was placed over each thermocouple on the unexposed side of the sample.

The fire test was run following the ASTM E119 time-temperature curve.


The endpoint for the ASTM E119 test occurs when either all the thermocouples on the sample reach an average of 250°F + ambient starting temperature, any individual thermocouple on the sample exceeds 325°F + ambient starting temperature, or when the sample experiences burn-through.

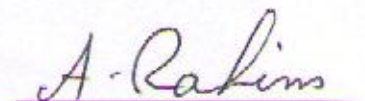
RESULTS:

The ambient temperature was 57°F.

At 123 minutes, the furnace was voluntarily shut off without reaching any of the end points.

The time-temperature data are contained on the following pages.


Neil Schultz
Executive Director


Amirudin Rahim
Technical Director

REVISION 1.0: Changed product description from "BLAZELOCKER" to "BLAZELOCKER ICE FIREWALL TAPE".

Notice: VTEC Laboratories Inc. will not be liable for any loss or damage resulting from the use of the data in this report, in excess of the invoice. This report pertains to the sample tested only. Such report shall not be interpreted to be a warranty, either expressed or implied as to the suitability or fitness of said sample for such uses or applications, as the party contracting for the report may apply such sample.

Time (mins.)	Sample 1 deg F	Sample 2 deg F	Sample 3 deg F	Sample 4 deg F	Sample 5 deg F	Sample 6 deg F	Furnace deg F	Furnace deg F	Furnace deg F	Sample Average	Furnace Average
0	57	57	57	57	57	58	57	57	58	57	57
1	57	57	57	57	57	58	692	690	708	57	697
2	57	57	57	57	57	58	808	824	888	57	840
3	57	57	58	57	57	58	910	897	950	57	919
4	57	57	57	57	57	58	992	983	1020	57	999
5	57	57	57	57	57	57	1000	998	1024	57	1007
6	57	57	57	57	57	58	1008	1002	1025	57	1012
7	57	57	57	57	57	58	1048	1066	1090	57	1068
8	57	57	57	57	57	58	1171	1177	1180	57	1176
9	57	57	57	57	57	58	1158	1162	1166	57	1162
10	57	57	57	57	57	58	1214	1213	1216	57	1215
11	57	57	58	57	57	58	1272	1284	1293	57	1283
12	57	58	58	57	58	58	1298	1306	1312	58	1305
13	58	58	58	57	58	58	1324	1333	1339	58	1332
14	58	58	58	58	58	58	1334	1340	1347	58	1341
15	58	58	59	58	58	59	1374	1383	1397	58	1385
16	59	59	59	58	58	59	1423	1428	1433	59	1428
17	59	60	60	59	59	60	1415	1414	1427	59	1419
18	60	61	61	60	60	61	1421	1423	1433	60	1426
19	61	61	62	60	60	61	1471	1479	1491	61	1480
20	62	62	63	61	61	62	1478	1485	1498	62	1487
21	63	64	64	62	62	63	1497	1502	1510	63	1503
22	64	65	65	63	63	64	1475	1481	1491	64	1482
23	65	66	67	64	64	66	1463	1474	1485	65	1474
24	67	68	68	66	65	67	1516	1516	1523	67	1518
25	68	69	69	67	68	68	1521	1522	1538	68	1527
26	70	71	71	68	67	69	1511	1519	1531	69	1520
27	71	72	72	69	69	70	1535	1537	1554	71	1542
28	72	74	74	70	70	72	1543	1541	1565	72	1550
29	74	75	76	72	71	73	1561	1556	1576	73	1564
30	75	77	77	73	72	74	1557	1562	1566	75	1562
31	77	78	78	74	74	76	1574	1573	1589	76	1579
32	78	79	80	76	75	77	1589	1569	1584	78	1574
33	80	81	82	77	76	78	1559	1556	1571	79	1562
34	81	83	83	78	77	79	1557	1555	1567	80	1560
35	83	84	85	80	78	81	1581	1552	1576	82	1563
36	85	85	86	81	79	82	1595	1597	1616	83	1603
37	86	87	88	83	81	84	1587	1590	1606	85	1594
38	88	89	90	84	82	85	1591	1590	1599	86	1593
39	90	90	92	86	83	87	1594	1587	1605	88	1595
40	91	92	93	87	85	88	1591	1589	1598	89	1593
41	93	93	95	88	86	90	1637	1640	1650	91	1642
42	95	95	97	90	87	91	1615	1608	1623	92	1615
43	97	96	98	91	89	93	1617	1616	1636	94	1623
44	98	98	100	93	90	94	1619	1615	1634	96	1623

Time (mins.)	Sample 1 deg F	Sample 2 deg F	Sample 3 deg F	Sample 4 deg F	Sample 5 deg F	Sample 6 deg F	Furnace deg F	Furnace deg F	Furnace deg F	Sample Average	Furnace Average
45	100	100	101	95	91	96	1625	1630	1649	97	1634
46	102	101	103	96	93	97	1630	1631	1643	99	1635
47	103	103	105	98	94	99	1632	1628	1642	100	1634
48	105	104	106	99	95	100	1638	1636	1653	102	1642
49	107	106	108	101	97	102	1643	1640	1656	103	1647
50	108	107	109	102	98	103	1646	1643	1665	104	1651
51	109	108	110	103	99	105	1666	1657	1678	106	1667
52	111	110	111	105	101	106	1674	1671	1687	107	1677
53	113	111	113	106	102	107	1687	1684	1705	109	1692
54	114	112	114	107	103	109	1683	1679	1699	110	1687
55	115	113	116	109	104	110	1700	1694	1715	111	1703
56	116	115	117	110	106	111	1684	1677	1694	112	1685
57	117	116	118	111	107	113	1677	1673	1688	114	1679
58	119	117	119	112	108	114	1677	1672	1686	115	1678
59	119	119	121	113	109	116	1680	1674	1688	116	1681
60	121	120	123	115	110	117	1676	1676	1688	118	1680
61	122	121	124	116	112	119	1708	1711	1729	119	1716
62	123	123	126	117	113	120	1714	1705	1722	120	1714
63	125	124	128	118	114	122	1722	1713	1731	122	1722
64	126	126	130	119	116	124	1697	1686	1708	124	1697
65	128	128	133	120	118	126	1704	1696	1712	125	1704
66	129	130	136	122	119	129	1724	1720	1742	127	1729
67	131	133	139	123	121	131	1732	1730	1751	130	1737
68	133	136	142	125	124	134	1741	1731	1749	133	1740
69	136	140	146	127	127	138	1757	1749	1773	136	1760
70	139	145	149	130	130	141	1736	1727	1746	139	1736
71	142	149	152	133	134	144	1730	1726	1742	142	1733
72	146	153	155	137	138	147	1752	1742	1760	146	1751
73	149	156	157	140	142	149	1754	1748	1766	149	1756
74	151	158	160	143	146	151	1758	1748	1768	151	1758
75	153	160	161	145	150	153	1766	1754	1772	154	1764
76	155	161	162	147	153	155	1766	1753	1776	155	1765
77	157	163	163	148	154	156	1775	1762	1785	157	1774
78	158	164	164	150	157	156	1770	1760	1780	158	1770
79	159	164	165	151	158	157	1776	1765	1786	159	1775
80	159	165	165	152	159	158	1783	1769	1784	160	1778
81	161	165	165	152	160	158	1777	1769	1790	160	1779
82	161	165	165	153	161	158	1784	1773	1794	160	1784
83	161	166	166	153	161	158	1781	1762	1789	161	1777
84	161	166	166	154	162	158	1787	1772	1791	161	1783
85	162	166	166	154	162	158	1787	1773	1794	161	1785
86	161	166	166	154	161	158	1781	1767	1788	161	1779
87	162	166	166	154	161	158	1780	1767	1782	161	1776
88	162	167	166	154	161	158	1784	1765	1790	161	1779
89	162	167	167	154	161	159	1781	1768	1783	161	1777
90	162	167	168	154	160	159	1795	1776	1806	162	1792

Time (mins.)	Sample 1 deg F	Sample 2 deg F	Sample 3 deg F	Sample 4 deg F	Sample 5 deg F	Sample 6 deg F	Furnace deg F	Furnace deg F	Furnace deg F	Sample Average	Furnace Average
91	162	167	169	155	159	160	1811	1786	1813	162	1804
92	162	168	170	155	159	161	1804	1789	1807	162	1800
93	163	168	171	156	159	162	1808	1790	1809	163	1802
94	163	169	172	157	159	163	1809	1791	1812	164	1804
95	164	169	173	157	158	163	1805	1789	1810	164	1801
96	165	169	174	159	159	164	1813	1796	1814	165	1808
97	166	169	175	159	159	165	1808	1791	1810	166	1803
98	167	170	176	160	159	165	1807	1792	1811	166	1803
99	168	170	177	161	159	166	1810	1790	1814	167	1805
100	169	171	178	162	160	167	1815	1796	1825	168	1812
101	170	172	178	163	160	167	1831	1812	1831	168	1824
102	170	172	179	164	160	168	1838	1822	1841	169	1834
103	171	173	180	165	160	168	1835	1821	1845	170	1834
104	172	173	181	165	161	169	1832	1825	1847	170	1834
105	173	173	181	166	161	170	1840	1824	1841	171	1835
106	174	174	182	167	162	170	1844	1831	1848	172	1841
107	175	175	183	168	162	171	1846	1833	1852	172	1844
108	175	175	183	168	163	171	1837	1825	1842	173	1834
109	176	175	183	169	164	172	1843	1830	1846	173	1840
110	177	176	184	170	164	172	1840	1821	1840	174	1834
111	178	177	185	171	165	173	1841	1829	1848	175	1839
112	178	177	186	171	165	173	1839	1823	1847	175	1836
113	179	178	186	172	166	173	1840	1832	1852	176	1841
114	180	178	187	173	166	174	1840	1826	1844	176	1837
115	180	179	187	173	167	175	1841	1831	1847	177	1840
116	180	179	188	174	167	175	1850	1836	1846	177	1844
117	181	180	188	174	168	176	1847	1836	1853	178	1845
118	181	180	189	175	169	176	1850	1839	1854	178	1848
119	182	181	189	175	169	176	1852	1839	1851	179	1848
120	183	181	190	176	170	177	1856	1846	1853	179	1852
121	183	182	190	177	170	177	1861	1844	1855	180	1853
122	184	182	191	177	169	178	1847	1843	1859	180	1850
123	184	183	191	178	170	178	1850	1838	1855	181	1847