

CLIENT: **Burger & CIE**
 Zone Industrielle Bois Abbessse
 LIEPVRE, ALSACE 68660

Test Report No: RJ7986F-1	Date: September 21, 2021
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SAMPLE ID: **Test Sample 1:** REF 20360 Pedestal Base Material / MAFILL CR XG3544.
Test Sample 2: REF 20359 Adjustment Collar Material / MAFILL CR CT 5344.

SAMPLING DETAIL: Test samples were submitted to the laboratory directly by the client. Sample preparation was performed by QAI. Samples were cut to dimensions following the standard requirement.

DATE OF RECEIPT: Samples were received on July 30, 2021.

TESTING PERIOD: Test sample 1 REF 20360 Pedestal Base Material / MAFILL CR XG3544. was tested September 02, 2021.

Test sample 2 of REF 20359 Adjustment Collar Material / MAFILL CR CT 5344 was tested September 02, 2021.

AUTHORIZATION: QAI proposal 20MB10135R5 dated August 30, 2021 authorized by Alex Gonzalez

TEST REQUESTED: ASTM D1929-20. "Standard Test Method for Determining Ignition Temperatures of Plastic". Spontaneous (Self) Ignition temperature.

TEST RESULTS: The submitted plastic products were found to have spontaneous ignition determined in accordance with ASTM D1929-20 as outlined below:

PLASTIC SAMPLE	SPONTANEOUS IGNITION TEMPERATURE
MAFILL CR XG3544	700° F (371°C)
MAFILL CR CT 5344	700° F (371°C)

PLASTIC SAMPLE	FLASH IGNITION TEMPERATURE
MAFILL CR XG3544	680° F (360°C)
MAFILL CR CT 5344	680° F (360°C)

See detailed results on page 2.

Prepared By

**Signed for and on behalf of
 QAI Laboratories, Inc.**



Victor.A.Peinado
 Senior Technician

Jason Friedrich P.E.
 Engineering Manager

PROCEDURE:

Test samples were submitted conditioned at 23±2°C / 50±10% relative humidity for a minimum of 40 hours.

Spontaneous (Self) Ignition Temperature (SIT)

A *Hot-Air Ignition Furnace* similar to that shown in Fig. 1 of ASTM D1929 was used which consists of an electrical heating unit and a specimen holder, was set with an air velocity of 25 mm/s. A temperature of 538°C (850°F) was set as a starting point.

The specimen pan was raised to cover the opening of the furnace and the specimen was placed into the pan. The specimen was then lowered into the furnace with care taken to ensure that the thermocouples used for temperature measurement remained in their correct position. After the specimen was in place, a calibrated timer started while observing for any evidence of flaming combustion, glowing combustion, or a rapid rise in temperature from thermocouple 1 over thermocouple 2 during the 10-minute test. The lowest air temperature inside the furnace observed by thermocouple 2 at which a specimen burns was recorded as the spontaneous' ignition temperature.

TEST RESULTS:

Specimen Number	Sample #1 MAFILL CR XG3544		Sample #2 MAFILL CR CT 5344	
	Furnace Temp °F	Result (min)	Furnace Temp °F	Result (min)
1	850	Ignition 02:03	850	Ignition 02:09
2	800	Ignition 02:27	800	Ignition 02:32
3	700	Ignition 06:30	700	Ignition 05:40
4	690	No ignition 10:00	690	No ignition 10:00
5	-	-	-	-
Result	700°F Ignition Temperature		700°F Ignition Temperature	

OBSERVATIONS: Flaming combustion was observed. Moderate smoke observed for both test samples.

Note: *“These test results relate only to the behavior of test specimens under the particular conditions of the test. They are not intended to be used, and shall not be used, to assess the potential fire hazards of a material in use.”*

If ignition occurred during this test temperature. The test chamber temperature was lowered, and the procedure repeated using a new specimen.

Flash Ignition Temperature (FIT)

A Vertical Hot-Air Ignition Furnace, QAI Asset Number RG613, similar to that shown below in Fig. 1, consisting of an electrical heating unit and a specimen holder, was set with an air velocity of 25 mm/s and a temperature of 343°C (650°F).

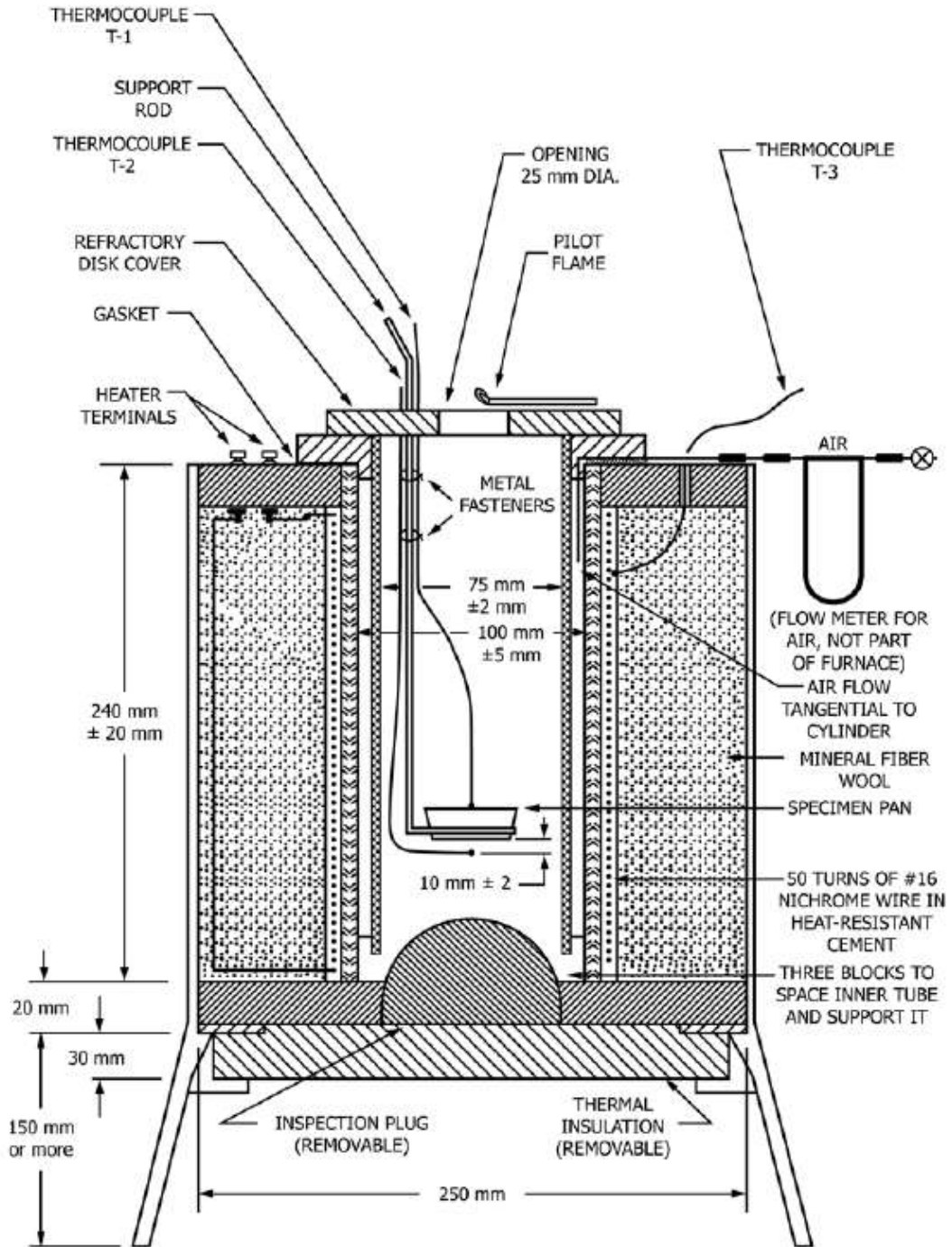
The specimen pan was raised to cover the opening of the furnace and the specimen was placed into the pan. The specimen pan with the specimen in place was lowered into the furnace with care taken to ensure that the Thermocouples used for temperature measurement remained in their correct position. After the specimen was in place, a calibrated timer QAI Asset Number TU8146 and Ignition of the pilot flame were simultaneously started while observing for any evidence of Flaming Combustion, glowing combustion, flash, explosion, of the specimen, or a rapid rise in temperature from Thermocouple 1 over Thermocouple 2, QAI Asset Number TC004 and TC001 during the 10-minute test.

Specimen Number	Sample #1 MAFILL CR XG3544		Sample #2 MAFILL CR CT 5344	
	Furnace Temp °F	Result (min)	Furnace Temp °F	Result (min)
1	650	No ignition 10:00	650	No ignition 10:00
2	680	Ignition 07:12	680	Ignition 07:15
3	670	No ignition 10:00	670	No ignition 10:00
4	-	-	-	-
5	-	-	-	-
Result	680°F Ignition Temperature		680°F Ignition Temperature	

OBSERVATIONS: Flaming combustion was observed. Moderate smoke observed for both test samples.

Note: *“These test results relate only to the behavior of test specimens under the particular conditions of the test. They are not intended to be used, and shall not be used, to assess the potential fire hazards of a material in use.”*

If ignition occurred during this test temperature. The test chamber temperature was lowered, and the procedure repeated using a new specimen.



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