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Facility Name: **Marble Arch Products**

Application Number: **14-4700**

Date: **July 14, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as

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an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

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APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

BEST AVAILABLE TECHNOLOGY

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Facility Marble Arch Products** located in **Warren** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

R001	Gel Coat Spray Booth
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<u>Ohio EPA Source Number</u>	<u>Cont'd</u>	<u>Source Identification Description</u>
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P001		Pouring Area-Marble Casting
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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		toxics policy		
	<u>BAT Determination</u>		<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
	BAT is satisfied by emission limitations and compliance with air toxics policy		3745-15-07	See General Terms
			3745-31-05	See Additional Special Terms A.1, A.2, A.4 and B.1
			3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a three minute average.
			3745-17-08*	Less stringent
			3745-21-07 (G) (2)*	Less stringent
			3745-15-07	See General Terms
	BAT is satisfied by usage and emission limitations and compliance with air		3745-31-05	See Additional Special Terms A.3, A.4 and B.2
			3745-21-07 (G) (2)*	Less stringent

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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* The emission limitations established by this rule is less stringent than those established by OAC rule 3745-31-05 (BAT) .

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Organic Compound	7.48
PM	4.52
PM ₁₀	4.52

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Hamilton County Dept. of Env. Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

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MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Hamilton County Dept. of Env. Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

CONSTRUCTION COMPLIANCE CERTIFICATION

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Applicable Emission Limitations and/or Control Requirements

1. The organic compound (OC) emissions from emissions unit P001 shall not exceed 2.6 pounds per hour, 40 pounds per day and 3.87 tons per year (including cleanup material).
2. The particulate/PM10 (PM/PM-10) emissions from emissions unit P001 shall not exceed 36.2 pounds per day and 4.52 tons per year.
3. The OC emissions from emissions unit R001 shall not exceed 3.61 pounds per hour, 40 pounds per day and 3.61 tons per year (including cleanup material).
4. The emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be determined on a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the HAP emissions shall not exceed the limits specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Single HAP Emissions (tons)</u>	<u>Maximum Allowable Combined HAPs Emissions (tons)</u>
1	1.5	3.0
1-2	3.0	6.0
1-3	4.5	9.0
1-4	5.0	12.5
1-5	5.0	12.5
1-6	5.0	12.5
1-7	5.8	14.5
1-8	6.7	16.7
1-9	7.5	18.8
1-10	8.3	20.8
1-11	9.2	22.9
1-12	9.9	24.9

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After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitation for HAPs shall be based upon a rolling, 12-month summation of the monthly emissions.

B. Operational Restrictions

1. The styrene content in the resin used in emissions unit P001 shall not exceed 31 percent by weight.
2. The styrene content in the gel coat used in emissions unit R001 shall not exceed 46 percent by weight.

C. Monitoring and Recordkeeping Requirements

1. The permittee shall maintain daily records for emissions unit P001 which include the following information:
 - a. the amount of resin used, in pounds;
 - b. the styrene content, in percent by weight;
 - c. the amount of catalyst used, in pounds;
 - d. the amount of limestone dust used, in pounds;
 - e. the company name and identification of each cleanup material employed;
 - f. the amount of each cleanup material used, in pounds;

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- g. the daily OC emissions calculated using the following equation:
$$\text{OC emissions} = 0.0003 * (a) (b) + 0.153 * (c) + (f);$$
 - h. the daily PM-PM10 emissions calculated using the following equation:
$$\text{PM-PM10 emissions} = 0.01 * (d);$$
 - i. the number of hours of operation of the emissions unit; and,
 - j. the average hourly OC emissions, in pounds per hour, calculated by dividing (g) by (i).
2. The permittee shall maintain daily records for emissions unit R001 which include the following information:
- a. the amount of gel coat used, in pounds;
 - b. the styrene content, in percent by weight;
 - c. the amount of catalyst used, in pounds;
 - d. the daily OC emissions calculated using the following equation:
$$\text{OC emissions} = 0.00521 * (a) (b) + 0.153 * (c);$$
 - e. the number of hours of operation of the emissions unit; and,
 - f. the average hourly OC emissions, in pounds per hour, calculated by dividing (d) by (e).
3. The permittee shall collect and record the following information each month for the entire facility:
- a. the name and identification number of each Hazardous Air Pollutant (HAP) containing material employed;
 - b. the amount of each HAP containing material

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employed;

- c. the total individual HAP emissions for each HAP from all HAP containing material employed, in pounds or tons per month. (This shall be calculated by using the appropriate emissions factor for each individual HAP for each HAP containing material);
- d. the total combined HAP emissions for each HAP from all HAP containing material employed, in pounds or tons per month. [This shall be calculated by adding the emissions from (c) for each individual HAP emitted];
- e. the updated rolling, 12-month summation for individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. For the first twelve months following the issuance of the permit, this shall be a cumulative total for all months since the issuance of the PTI; and,
- f. the updated rolling, 12-month summation for total combined HAP emissions in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. For the first twelve months following the issuance of the permit, this shall be a cumulative total for all months since the issuance of the PTI.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

- 4. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
 - a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters,

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etc.); and,

- b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.
5. Each record of any monitoring data, testing data and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. Such records may be maintained in computerized form.

D. Reporting Requirements

1. The permittee shall notify the Hamilton County Department of Environmental Services of any monthly record showing any deviation from the following:
 - a. the total individual HAP emission limitation for each HAP from all materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period; and,

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- b. the total combined HAP emissions from all materials employed, in pounds or tons per month and pounds or tons per rolling 12-month period.
2. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the hourly and/or daily PM/PM10 and OC emissions limitations set forth in this permit. The permittee shall submit quarterly reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance.

If no exceedance occurred during the reporting period than a report is required stating so.

3. The permittee shall submit required reports in the following manner:
- a. reports of any required monitoring and/or recordkeeping information shall be submitted to the Hamilton County Department of Environmental Services;
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Hamilton County Department of Environmental Services.

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly i.e., by January 30, April 30, July 30, and October 30 of each year and shall cover the previous calendar quarters. (These

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quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06).

E. Compliance Methods/Testing Requirements

1. Compliance with the PM/PM10 and OC emissions limitations in Terms A.1, A.2 and A.3 shall be determined by the record-keeping specified in Terms C.1. and C.2.
2. Compliance with the HAPs emissions limitations in Term A.4 shall be determined by the record-keeping specified in Term C.3.

F. Miscellaneous Requirements

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC).

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The following summarizes the results of the modeling for each pollutant:

Pollutant: Styrene
TLV (ug/m3): 85,000
Maximum Hourly Emission Rate (lbs/hr):
= 3.59 (emissions unit R001)
= 1.79 (emissions unit P001)
Predicted 1 Hour Maximum Ground-Level Concentration at:
P001 672 ug/m3
R001 41.83 ug/m3
Total 714 ug/m3

Maximum Acceptable Ground-Level Concentration (MAGLC)
(ug/m3): 2024

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);

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- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and,
- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.