MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

January 22, 2003

PERMIT TO INSTALL
No. 275-02

ISSUED TO
Key Plastics, Howell Division

LOCATED AT
1301 McPherson Park Drive
Howell, Michigan 48843

IN THE COUNTY OF
Livingston

STATE REGISTRATION NUMBER
N2148

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **12/02/2002**	
DATE PERMIT TO INSTALL APPROVED: **1/22/2003**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	Btu	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
EPA	Environmental Protection Agency	gr	Grains
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallon of Applied Coating Solids	H_2S	Hydrogen Sulfide
GC	General Condition	hp	Horsepower
HAP	Hazardous Air Pollutant	lb	Pound
HVLP	High Volume Low Pressure *	m	Meter
ID	Identification	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NOx	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM-10	Particulate Matter less than 10 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
SC	Special Condition Number	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **[R336.1201(1)]**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **[R336.1201(4)]**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **[R336.1201(6)(b)]**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **[R336.1201(8), Section 5510 of Act 451, PA 1994]**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **[R336.1219]**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **[R336.1901]**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **[R336.1912]**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R336.1303. **[R336.1301]**

    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.

    b) A visible emission limit specified by an applicable federal new source performance standard.

    c) A visible emission limit specified as a condition of this permit to install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R336.1370(2). **[R336.1370]**

13. Except as allowed by Rule 285 (a), (b), and (c), the permittee shall not substitute any fuels, coatings, nor raw materials for those described in the application and allowed by this permit, nor make changes to the process or process equipment described in the application without prior notification to and approval by the Air Quality Division. **[R336.1201(1)]**

14. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R336.2001 and R336.2003, under any of the conditions listed in R336.2001. **[R336.2001]**

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EU-PBPLINE2	Plant 2 consists of a plastics parts coating system. The system includes a paint mix room, water based power wash system, seven downdraft water wash spray booths, and two bake ovens controlled by a rotary zeolite concentrator/recuperative thermal incinerator preceded by a fabric filter collector.	SV-INCINERATOR
Changes to the equipment described in this table are subject to the requirements of R336.1201, except as allowed by R336.1278 to R336.1290.		

Flexible Group Identification

Flexible Group	Emission Units Included in Flexible Group	Stack Identification
FG-FACILITY	All equipment at the stationary source including equipment covered by other permits, grand-fathered equipment and exempt equipment	N.A.

The following conditions apply to: EU-PBPLINE2

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1a	VOCs	EU-PBPLINE2	69.0 tpy*	12-month rolling time period as determined at the end of each calendar month	SC 1.12 & SC 1.13	R336.1205, R336.1702(a)
1.1b	VOCs	EU-PBPLINE2	662.4 pounds per day*	Calendar day	SC 1.12 & SC 1.13	R336.1205, R336.1225

* The emission limit includes coatings, reducers, and purge and clean-up solvents as demonstrated through record keeping in SC 1.12 and SC 1.13 with the mass emissions combined.

Process / Operational Limits

1.2 VOC emissions from purge solvent usage for EU-PBPLINE2 shall not exceed 10% by weight, of the total amount of solvent used for this activity as averaged on a monthly basis. **[R336.1225, R336.1702(a)]**

1.3 All waste coatings and purge solvents shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with all applicable rules and regulations. **[R336.1225, R336.1702(a)]**

1.4 The permittee shall continue to operate the recuperative thermal incinerator until one (1) hour after all coating process equipment is shut down. **[R336.1702(a), R336.1901]**

1.5 The permittee shall maintain and operate EU-PBPLINE2 according to the procedures outlined in the Preventative Maintenance Plan attached as Appendix A or an alternative plan approved by the AQD District Supervisor. **[R336.1910, R336.1911]**

Equipment

1.6 The permittee shall not operate any paint spray booth portion of EU-PBPLINE2 unless the respective water wash downdraft control system is installed and operating in a satisfactory manner. **[R336.1224, R336.1301, R336.1331, R336.1901, R336.1910]**

1.7 The permittee shall equip and maintain the paint spray booth portions of EU-PBPLINE2 with HVLP applicators or equivalent technology with comparable transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **[R336.1702(a)]**

1.8 The permittee shall not operate EU-PBPLINE2 unless the recuperative thermal incinerator is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal incinerator includes a minimum VOC capture efficiency of 90 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum temperature of 1300 °F and a minimum retention time of 0.5 seconds. **[R336.1205, R336.1225, R336.1702(a), R336.1910]**

Testing

1.9 The VOC content, water content, and density of any coating as applied and as received shall be determined using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the VOC content may be determined from manufacturer's formulation data. If the Method 24 and the formulation values should differ, then the Method 24 results shall be used to determine compliance. **[R336.1205, R336.1224, R336.1225, R336.1702(a), R336.1901]**

Monitoring

1.10 The permittee shall monitor, in a satisfactory manner, the temperature in the recuperative thermal incinerator on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. **[R336.1205, R336.1225, R336.1702(a)]**

Recordkeeping / Reporting / Notification

1.11 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, reducer, and solvent, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1224, R336.1225, R336.1702]**

1.12 The permittee shall keep the following information on a daily basis for the EU-PBPLINE2:

a) Gallons of each coating and reducer used.

b) VOC content, in pounds per gallon, of each coating and reducer as applied.

c) VOC mass emission calculations determining the daily emission rate in pounds per calendar day.

d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.

e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205, R336.1224, R336.1225, R336.1702(a), R336.1901]**

1.13 The permittee shall keep the following information on a daily basis for the use of purge and clean-up solvents associated with the EU-PBPLINE2:

a) Gallons of each solvent used and reclaimed or destructed in the incinerator.

b) VOC content, in pounds per gallon, of each solvent used.

c) VOC mass emission calculations determining the daily emission rate in pounds per calendar day.

d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.

e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205, R336.1224, R336.1225, R336.1702(a), R336.1901]**

1.14 The permittee shall keep, in a satisfactory manner, continuous records of the temperature in the recuperative thermal incinerator. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205, R336.1224, R336.1225, R336.1702(a), R336.1901]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.15	SV-INCINERATOR	60	50	R336.1225, R336.1901, 40 CFR 52.21(c) & (d)
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.			

The following conditions apply to: FG-FACILITY

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
2.1a	Each Individual HAP	FG-FACILITY	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	SC 2.5	R336.1205(3)
2.1b	Aggregate HAPs	FG-FACILITY	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	SC 2.5	R336.1205(3)
2.1c	VOCs	FG-FACILITY	Less than 90.0 tpy	12-month rolling time period as determined at the end of each calendar month	SC 2.6	R336.1205(3)

Testing

2.2 The HAP content of any material as applied and as received shall be determined using manufacturer's formulation data. Upon request of the AQD District Supervisor, the manufacturer's HAP formulation data shall be verified using EPA Test Method 311. **[R336.1205(3)]**

2.3 The VOC content, water content, and density of any material as applied and as received shall be determined using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the VOC content may be determined from manufacturer's formulation data. If the Method 24 and the formulation values should differ, then the Method 24 results shall be used to determine compliance. **[R336.1205(3)]**

Recordkeeping / Reporting / Notification

2.4 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(3)]**

2.5 The permittee shall keep the following information on a monthly basis for FG-FACILITY:

a) Gallons or pounds of each material used.

b) Where applicable, gallons or pounds of each material reclaimed.

c) HAP content, in pounds per gallon or pounds per pound, of each material used.

d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.

e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(3)]**

2.6 The permittee shall keep the following information on a monthly basis for FG-FACILITY:

a) Gallons or pounds of each material used.

b) Where applicable, gallons or pounds of each material reclaimed.

c) VOC content, in pounds per gallon or pounds per pound, of each material used.

d) VOC emission calculations determining the monthly emission rate of each in tons per calendar month.

e) VOC emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(3)]**

APPENDIX A: Preventative Maintenance Plan

The permittee shall adhere to the following Preventative Maintenance Plan which outlines required inspections and maintenance for various system components that could affect air emissions from EU-PBPLINE2.

WEEK OF _____ DAILY AIR QUALITY CHECKLIST

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement On							
Green Control Power Light On							
Green On Line Light On							
System Running On Solvents							
Desorption Temperature							
Range 335 – 360 F							
Oxidizer Temperature							
Range 1300 – 1600 F							
All Outer Plant Doors Closed							
North Side Doors – Alarms On							
Parts Storage Area							
Paint Kitchen							
Compressor Room							
Sludge Room							
Sludge Room All Chemical Pumps On							
Sludge System Operating Properly							
Air Make-up Units – Roof Top							
All Doors Closed							
Check For Air Leaks							
Ad. Pro. 1 –2 Mag Gauge Reading							
Paint 1 – 2 Mag Gauge Reading							
Paint 3 Mag Gauge Reading							
Clear 1 – 2 Mag Gauge Reading							
If Reading Greater Than 1.00, Filters Must Be Changed							
Initials of person doing the checklist each day							

(WHEN CHECKED – MARK WITH A CHECK MARK; WHEN CHANGED – MARK WITH A "C")

Comments:

_____
_____
_____
_____
_____
_____
_____

Team Leader or Designate Signature: _____

DAILY CHECKLIST FOR TOP OF ENCLOSURE

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Check Belts On Tunnel Exhaust Fans							
Booth Air Make-up Enclosure (Make Sure Doors Are Closed)							
Check Paint & Air Lines For Leaks							
Check Pressguards – Rods are connected & Tight							
Initials of person doing the checklist each day							

(WHEN CHECKED – MARK WITH A CHECK MARK; WHEN CHANGED – MARK WITH A "C")

Comments:

_____
_____
_____
_____
_____
_____
_____

Team Leader or Designate Signature: _____

WEEK OF _____ **DAILY FILTER CHECKLIST FOR ROOFTOP**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Tunnel Supply (2)							
Clean Room HVAC							
New Ad. Pro. Airhouse							
Basecoat Airhouse							
Clearcoat Airhouse							
Abatement							
Plant AMU							
Mixroom Heater							
Office HVAC (2)							
Blowoff Filters							
Dryoff Oven Filter							

(WHEN CHECKED – MARK WITH A CHECK MARK; WHEN CHANGED – MARK WITH A "C")

Comments:

_____
_____

_____
_____
_____
_____
_____

Team Leader or Designate Signature: _____