

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

PROJECT NAME	
ADDRESS	
NUMBER	
OWNER	
ARCHITECT / ENGINEER	
SUBMITTED BY	
CONTRACTOR / CM SUBMITTAL NO.	CANNON DESIGN SUBMITTAL NO.
DRAWING / DETAIL REFERENCE	SPECIFICATION SECTION / PARAGRAPH
MANUFACTURER / SUPPLIER	ITEM / PRODUCT ID
REQUIRED DATE	PRIORITY
CRITICAL	☐

To be completed by Reviewer

CANNON DESIGN SUBMITTAL NUMBER
RECEIVED DATE

- ☐ **A. No Exceptions Taken**
No further review of submittal is required.
- ☐ **B. Make Corrections Noted**
Incorporate corrections in work;
resubmission is not required.
- ☐ **C. Revise and Resubmit**
Revise as noted, and resubmit for review.
- ☐ **D. Rejected**
Submittal is not in compliance with Contract Documents;
provide new submittal.
- ☐ **E. For Record / Information Only**
Submittal was reviewed for Record / Information
purposes only.
- ☐ **F. Not Required for Review**
Submittal is not required by Contract Documents
and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

ITEM BEING SUBMITTED (check only one)

- ☐ Shop Drawings ☐ Certification / Qualifications ☐ Coordination Drawing
☐ Samples ☐ Record Documents ☐ Calculations
 (_____ copies) ☐ Product Data ☐ Schedules
☐ LEED Submittal ☐ O&M Manuals
☐ Other _____

ITEM BEING SUBMITTED FOR (check only one)

- ☐ Action ☐ Information Only ☐ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)



PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

Ry:

By:
Devin D. Gates

REVIEWED BY	DATE

A/E COMMENTS

- ☐
- See attached sheet(s) for additional comments

REVIEWED BY	DATE



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0159

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 07/25/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Nonstructural caulking within curtainwall
system - DOW

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:		SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings		☒ Approval	☐ Approved as Submitted
☐ Letter		☐ Your Use	☐ Approved as Noted
☐ Prints		☐ As Requested	☐ Returned After Loan
☐ Change Order		☐ Review and Comment	☐ Resubmit
☐ Plans			☐ Submit
☐ Samples		SENT VIA:	☐ Returned
☐ Specifications		☐ Attached	☐ Returned for Corrections
☒ Other: Product Data		☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		084423-017	1		07/25/2016	Nonstructural caulking within curtainwall system - DOW	Submitted

NOTES:

CC:

Signed: _____
Devin Gates

Dow Corning[®] 791 Silicone Weatherproofing Sealant

FEATURES

- Ideal for expansion, connection, perimeter and other movement joints
- Neutral cure – suitable for use on coated glass, galvanized steel, masonry and other porous and non-porous substrates
- Extension/compression movement capability of up to ±50 percent of the original joint width

BENEFITS

- Excellent weatherability, virtually unaffected by sunlight, rain, snow, ozone
- Excellent unprimed adhesion to a wide variety of construction materials and building components
- Ease of application – ready to use as supplied
- Excellent rheology, low string upon gunning

COMPOSITION

- One-part, neutral-cure, RTV silicone sealant

Neutral, one-part silicone sealant

APPLICATIONS

- *Dow Corning*[®] 791 Silicone Weatherproofing Sealant is a specified, premium performance weather sealing product specifically designed for general glazing and weather sealing in curtain wall and building facades.

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Method	Test	Unit	Result
Uncured – As Tested at 50% RH and 23°C (73°F)			
ASTM ¹ C 639	Flow (sag or slump)	inches (mm)	0
ASTM C 603	Extrusion Rate	g/minute	140
	Working Time	minutes	20
ASTM C 679	Tack-free Time, 77°F, 50% RH	minutes	40
	Curing Time at 77° (25°C) and 50% RH	days	7-14
	VOC Content ²	g/L	31
As Cured – After 21 days at 50% RH and 77°F (25°C)			
ASTM D 2240	Durometer Hardness, Shore A	points	34
ASTM C 794	Peel Strength	lb/in (kg/cm)	30 (5.4)
ASTM C 719	Joint Movement Capability	percent	±50
ASTM C 1135	Tensile Adhesion Strength		
	At 25% extension	Psi (MPa)	40 (0.276)
	At 50% extension	Psi (MPa)	60 (0.414)

¹ ASTM – American Society for Testing and Materials.

² Based on South Coast Air Quality Management District of California. Maximum VOC is listed both inclusive and exclusive of water and exempt compounds. For a VOC data sheet for a specific sealant color, please send your request to product.inquiry@dowcorning.com.

DESCRIPTION

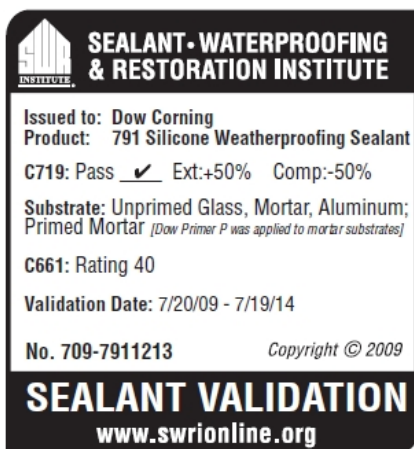
Dow Corning[®] 791 Silicone Weatherproofing Sealant is a one-part, neutral-cure, architectural grade sealant. It easily extrudes in any weather and cures at ambient temperature by reaction with moisture in the air to form a durable, flexible silicone rubber seal.

HOW TO USE

Please consult the Dow Corning Americas Technical Manual, Form No. 62-1112, for detailed information on state-of-the-art application methods and joint design. Please contact your local Dow Corning Sales Application Engineer for specific advice.

Preparation

Clean all joints removing all foreign matter and contaminants such as grease, oil, dust, water, frost, surface dirt, old sealants or glazing compounds and protective coatings.



Application Method

Install backing material or joint filler, setting blocks, spacer shims and tapes. Mask areas adjacent to joints to ensure neat sealant lines. Primer is generally not required on non-porous surfaces, but maybe necessary for optimal sealant of certain porous surfaces. A test placement is always recommended. Apply *Dow Corning*® 791 Silicone Weatherproofing Sealant in a continuous operation using a positive pressure. (The sealant can be applied using many types of air-operated guns and most types of bulk dispensing equipment. Before a skin forms (typically within 15 minutes), tool the sealant with light pressure to spread the sealant against backing material and the joint surfaces. Remove masking tape as soon as the bead is tooled.

APPROVALS/ SPECIFICATIONS

Meets the requirements of:

- ASTM C920 Type S, Grade NS, Class 50, Use NT, M, G, A

Colors

This product is available in 6 colors: black, gray, bronze, limestone, precast white and white. Custom colors may be ordered to match virtually any substrate.

HANDLING PRECAUTIONS

PRODUCT SAFETY
INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 30°C (86°F) in the original unopened containers, *Dow Corning*® 791 Silicone Weatherproofing Sealant has a usable life of 12 months from the date of manufacture. Refer to product packaging for "Use By" date.

PACKAGING INFORMATION

Dow Corning® 791 Silicone Weatherproofing Sealant is available in 10.3 fl oz (305-mL) disposable plastic cartridges that fit ordinary caulking guns, 20-fl oz (590-mL) sausages.

LIMITATIONS

Dow Corning® 791 Silicone Weatherproofing Sealant is not approved for use as a structural sealant.

Dow Corning® 791 Silicone Weatherproofing Sealant should not be used:

- In below-grade applications
- When surface temperatures exceed 50°C (122°F)
- On surfaces that are continuously immersed in water.

- On building materials that bleed oils, plasticizers or solvents, green or partially vulcanized rubber gaskets or tapes
- On frost-laden or wet surfaces
- In totally confined joints (the sealant requires atmospheric moisture for cure)
- If the sealant is intended to be painted (paints do not typically adhere to most silicone sealants)
- To surfaces in direct contact with food or other food-grade applications

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, dowcorning.com or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

**DOW CORNING SPECIFICALLY
DISCLAIMS ANY OTHER
EXPRESS OR IMPLIED
WARRANTY OF FITNESS FOR A
PARTICULAR PURPOSE OR
MERCHANTABILITY.**

**DOW CORNING DISCLAIMS
LIABILITY FOR ANY
INCIDENTAL OR
CONSEQUENTIAL DAMAGES.**

A 20-year Weatherseal Limited Warranty is available. Some testing may be required. Consult your Dow Corning Sales Application Engineer for details.

We help you invent the future.™

dowcorning.com

DOW CORNING CORPORATION
Material Safety Data Sheet

Page: 1 of 7

Version: 1.6

Revision Date: 2013/06/07

DOW CORNING(R) 791 (US) - BLACK**1. PRODUCT AND COMPANY IDENTIFICATION**

Dow Corning Corporation
South Saginaw Road
Midland, Michigan 48686

24 Hour Emergency Telephone: (989) 496-5900

Customer Service: (989) 496-6000

Product Disposal Information: (989) 496-6315

CHEMTREC: (800) 424-9300

MSDS No.: 04081817

Revision Date: 2013/06/07

Generic Description: Silicone elastomer

Physical Form: Paste

Color: Black

Odor: Odorless

NFPA Profile: Health 0 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

2. HAZARDS IDENTIFICATION**POTENTIAL HEALTH EFFECTS****Acute Effects**

Eye: Direct contact may cause temporary redness and discomfort.

Skin: No significant irritation expected from a single short-term exposure.

Inhalation: No significant effects expected from a single short-term exposure.

Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

Skin: No known applicable information.

Inhalation: No known applicable information.

Oral: No known applicable information.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

DOW CORNING CORPORATION
Material Safety Data Sheet

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DOW CORNING(R) 791 (US) - BLACK

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

None present. This is not a hazardous material as defined in the OSHA Hazard Communication Standard.

4. FIRST AID MEASURES

Eye:	If irritation occurs, flush eye(s) with lukewarm gently flowing water for 5 minutes. Obtain medical attention.
Skin:	No health effects expected. If irritation does occur flush with lukewarm, gently flowing water for 5 minutes. If irritation persists, obtain medical advice.
Inhalation:	If symptoms are experienced remove source of contamination or move victim to fresh air. If irritation persists, obtain medical advice.
Oral:	If irritation or discomfort occur, obtain medical advice.
Notes to Physician:	Treat according to person's condition and specifics of exposure.

5. FIRE FIGHTING MEASURES

Flash Point:	Not applicable.
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.
Extinguishing Media:	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO ₂), dry chemical or water spray. Water can be used to cool fire exposed containers.
Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire Hazards:	None.

6. ACCIDENTAL RELEASE MEASURES

DOW CORNING CORPORATION
Material Safety Data Sheet

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DOW CORNING(R) 791 (US) - BLACK

Containment/Clean up: Observe all personal protection equipment recommendations described in Sections 5 and 8. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See Section 8 for Personal Protective Equipment for Spills. Call (989) 496-5900, if additional information is required.

7. HANDLING AND STORAGE

Use with adequate ventilation. Avoid eye contact.

Use reasonable care and store away from oxidizing materials. This material in its finely divided form presents an explosion hazard. Follow NFPA 654 (for chemical dusts) or 484 (for metal dusts) as appropriate for managing dust hazards to minimize secondary explosion potential.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Component Exposure Limits**

There are no components with workplace exposure limits.

Engineering Controls

Local Ventilation: None should be needed.
General Ventilation: Recommended.

Personal Protective Equipment for Routine Handling

Eyes: Use proper protection - safety glasses as a minimum.
Skin: Washing at mealtime and end of shift is adequate.
Suitable Gloves: Handle in accordance with good industrial hygiene and safety practices.
Inhalation: No respiratory protection should be needed.
Suitable Respirator: None should be needed.

Personal Protective Equipment for Spills

DOW CORNING(R) 791 (US) - BLACK

Eyes: Use proper protection - safety glasses as a minimum.

Skin: Washing at mealtime and end of shift is adequate.

Inhalation/Suitable
Respirator: No respiratory protection should be needed.

Precautionary Measures: Avoid eye contact. Use reasonable care.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Paste
Color: Black
Odor: Odorless
Specific Gravity @ 25°C: 1.51
Viscosity: Not determined.
Freezing/Melting Point: Not determined.
Boiling Point: Not determined.
Vapor Pressure @ 25°C: Not determined.
Vapor Density: Not determined.
Solubility in Water: Not determined.
pH: Not determined.
Volatile Content: Not determined.
Flash Point: Not applicable.
Autoignition Temperature: Not determined.
Flammability Limits in Air: Not determined.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to Avoid: None.

Materials to Avoid: Oxidizing material can cause a reaction.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Metal oxides. Formaldehyde. Silicon

DOW CORNING(R) 791 (US) - BLACK

dioxide. Quartz.

11. TOXICOLOGICAL INFORMATION**Special Hazard Information on Components**

No known applicable information.

12. ECOLOGICAL INFORMATION**Environmental Fate and Distribution**

Complete information is not yet available.

Environmental Effects

Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants

Complete information is not yet available.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

13. DISPOSAL CONSIDERATIONS**RCRA Hazard Class (40 CFR 261)**

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No

State or local laws may impose additional regulatory requirements regarding disposal. Call (989) 496-6315, if additional information is required.

14. TRANSPORT INFORMATION**DOT Road Shipment Information (49 CFR 172.101)**

Not subject to DOT.

DOW CORNING(R) 791 (US) - BLACK**Ocean Shipment (IMDG)**

Not subject to IMDG code.

Air Shipment (IATA)

Not subject to IATA regulations.

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

15. REGULATORY INFORMATION

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

EPA SARA Title III Chemical Listings**Section 302 Extremely Hazardous Substances (40 CFR 355):**

None.

Section 304 CERCLA Hazardous Substances (40 CFR 302):

None.

Section 311/312 Hazard Class (40 CFR 370):

Acute: No
Chronic: No
Fire: No
Pressure: No
Reactive: No

Section 313 Toxic Chemicals (40 CFR 372):

None present or none present in regulated quantities.

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

Supplemental State Compliance Information**California**

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
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DOW CORNING(R) 791 (US) - BLACK

67-56-1 <0.1000 Methyl alcohol Developmental toxin.

New Jersey

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
471-34-1	40.0 - 60.0	Calcium carbonate
70131-67-8	30.0 - 50.0	Dimethyl siloxane, hydroxy-terminated
63148-62-9	10.0 - 30.0	Polydimethylsiloxane
1333-86-4	1.0 - 5.0	Carbon black
14808-60-7	<1.0	Quartz

Pennsylvania

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
471-34-1	40.0 - 60.0	Calcium carbonate
70131-67-8	30.0 - 50.0	Dimethyl siloxane, hydroxy-terminated
63148-62-9	10.0 - 30.0	Polydimethylsiloxane
1333-86-4	1.0 - 5.0	Carbon black

16. OTHER INFORMATION

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

(R) indicates Registered Trademark

LEED PROJECT INFORMATION

Thank you for your LEED inquiry. Following is the product information requested.

PRODUCT CONTENT INFORMATION

Materials and Resources Credit 5: This credit relates to 10-20% of the total material cost of products extracted, harvested, or recovered, as well as manufactured, within 500 miles of the building site location. Because of Dow Corning's supply chain and distances between suppliers and manufacturing sites, Dow Corning sealants cannot contribute to this credit.

Materials and Resources Credit 4: The percentage of postconsumer and preconsumer recycled content of Dow Corning sealants, primers, and coatings is zero.

PRODUCT VOC INFORMATION

This document confirms VOC quantitative data of the products listed below, as a contribution toward satisfying IEQ Credit 4 under LEED. Products are not reviewed or certified under LEED. LEED credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. For more information on LEED, visit www.usgbc.org/leed

	Product Type	Product Manufacturer	Product Name / Model	Product VOC Content	Allowable VOC Content
1	Architectural Sealant	Dow Corning	791 Silicone Weatherproofing Sealant	30	250
2					
3					
4					

FOR ALL RATING SYSTEMS ASSOCIATED WITH

- ☒ LEED Building Design and Construction
- ☐ LEED Interior Design and Construction
- ☐ LEED Operations and Maintenance
- ☐ LEED for Homes
- ☐ LEED for Neighborhood Development

VOC METHOD

- ☒ South Coast SCAQMD Rule #1168 (Sealants)
- ☐ South Coast SCAQMD Rule #1113 (Coatings)
- ☒ Bay Area BAAQMD Regulation 8 Rule 51
- ☒ California Specification 01350

LIMITED WARRANTY INFORMATION

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

DECLARATION HOLDER

The declaration holder is liable for the information and evidence on which this declaration is based.

Name	Phone number	Email
Chris Gronski	989 496-7788	chris.gronski@dowcorning.com
Occupation	Dow Corning Office	
Product Specialist	Corporate	
Address		
2200 W Salzburg Rd., Midland, MI 48686		

DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.