



Handwritten notes:
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R...
C...

Insulators Health Hazard Program

Plaintiff's Exhibit
S-UC-211

511 Machinists Building
1300 Connecticut Ave., N.W.
Washington, D.C. 20036
(202) 785-2150

May 14, 1975

Mr. W.C. Thurber
Union Carbide Corporation
Mining and Metals Division
270 Park Avenue
New York, New York 10017

Dear Mr. Thurber:

This is in reference to your communication of May 5, 1975 and the various information you supplied in regards to amendments to Senator Milton Marks' legislation. I would like to make the following comments.

1. I am deeply concerned over the handling of the dry materials such as the methods of mixing and the precautions and safety equipment which are to be used. What safety precautions and equipment would be used in the cleanup, especially of the overspray after drying?
2. I noticed the various percentages of asbestos that are in the different mixtures and find that they run as high as approximately 20%. We have many statistics to show that our people who have been exposed to less than the two fiber amount, which will become the law under OSHA next year, are still experiencing severe difficulties healthwise with asbestosis and the many other diseases associated with asbestos. This includes wives, children and other people who do not know they are being exposed to the above product. We are naturally concerned with asbestos exposure to anyone, regardless if they are affiliated or not with any individual union.
3. What consequences are experienced from erosion, abrasion, damage to the finished products, cutting, sanding, etc.?
4. Although you mention the use of just a small percent or amount of asbestos, I again question the amount which rises to approximately 20%. This is a greater percentage than many of the products we have used in the past such as pipe covering and flat block materials containing asbestos.

Handwritten:
Frank
June 3

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PLAINTIFF'S
EXHIBIT
43971.00

PLAINTIFF'S
EXHIBIT
WY-668389

Mr. W.C. Thurber - page two

We feel that we would have to take a very close look at the many different applications, including the overspray effect, before we could reach any conclusions regarding changes in Senator Marks' legislation.

We are not overly concerned about a wet or sealed in application but the effects before and after application is our main worry with asbestos in a dry state.

We sincerely hope that you can answer the above questions to our satisfaction and that a mutual understanding can be reached.

With best regards, I am

Very truly yours,

Roy J. Steinfurth
Insulators' Health Hazard Program

RJS:mgm

CC: Dr. Irving J. Selikoff
Senator Milton Marks
Dr. Bill Nicholson
Dr. Duncan Holaday
Mr. Ed Story



May 5, 1975

Mr. Roy J. Steinfurth, Administrator
Insulators Health Hazard Program
511 Machinist Building
1300 Connecticut Avenue N.W.
Washington, D. C. 20036

Dear Mr. Steinfurth:

As a follow-up to today's telephone conversation, I am enclosing for your information copies of correspondence which we directed through the California Manufacturers Association to Senator Milton Marks regarding proposed additional exemptions to the recently enacted California law relating to the spraying of asbestos.

As you can see from this information, we are suggesting that certain additional materials in which relatively small amounts of asbestos are contained in a liquid binder and applied by spraying can be exempted without jeopardizing the health of the individual worker or the general public. The data clearly show that the air-borne asbestos concentration generated during the spraying of paints, textured coatings, polyester resins, asphalt base roofing materials and the like are substantially below the 2 fiber/cc time-weighted average value which is soon to become the national standard. While we are convinced that the spraying of essentially pure asbestos with little or no binder for fireproofing and insulation is a totally inappropriate use of this material, we are also convinced that the same ban should not apply to the spraying of materials containing small amounts of asbestos well wet out by a permanent binder.

After you have had the opportunity to review this material, I hope that you will be able to indicate to your superiors in California that the additional exemptions we are proposing represent a reasonable and safe application for asbestos.

If I can be of any further assistance to you in evaluating this material, please let me know.

Very truly yours,
"ORIGINAL SIGNED BY
W. C. THURBER",

W. C. Thurber
Product Manager - Asbestos

WCT/es
Enclosures

bcc: Messrs. F. H. Larrison - with attachments
H. B. Rhodes - without "
P. McAmis - " "

Draft - April 23, 1975

Senator Milton Marks
California State Senate

Dear Senator Marks:

It was a pleasure meeting with you last week and having the opportunity to discuss proposed amendments to SB2419 relating to the spraying of materials containing asbestos.

In the interim since our meeting, we have had the opportunity to review Dr. Selikoff's letter of March 14, 1975, to you and would like to provide some comments on the questions raised by Dr. Selikoff. Dr. Selikoff apparently did not receive the detailed dust count data which CMA submitted in support of the proposed amendments and thus is quite correct in the position that the information available was not adequate to evaluate the proposed amendments. It seems from the nature of his other questions that he is looking at this in the same light as the now discontinued operation of spraying asbestos building insulation. In insulation spraying, bags of raw asbestos fiber are mixed in a water slurry and sprayed on to steelwork and other surfaces for fireproofing. There is little or no permanent binder so the sprayed material ends up as a mater of virtually pure asbestos held in place by its own entangled fibers. Such operations obviously represent an inappropriate use of asbestos and have been outlawed.

There is a substantial difference between this spraying of asbestos for building insulation and the operations covered by our proposed amendments wherein a relatively small amount of asbestos is added to a liquid binder for control of certain physical properties of the material. The asbestos in the finished coating or item is firmly held in a permanent binder. Recognition of these distinctions is essential for an appropriate evaluation of the proposed amendments.

Referring to Dr. Selikoff's five specific questions, the following comments are offered:

1. All of the systems except the interior wall and ceiling texture sprays i.e.
water-based systems with water soluble binders, are factory mixed and de-

livered to the spraying location with the asbestos fully wetted out. The texture sprays, containing 1-3% asbestos mixed into the other dry ingredients are typically added to water at the site. The act of dumping is controlled by the OSHA regulations and if it cannot be done in compliance the entire operation should be stopped. There are moves at some locations to compound this type of spray at factory locations and pump it directly into the sprayer's tank.

2. Extensive supporting data have been supplied on this point. (See Tables I-IV attached) The maximum level found was a ceiling concentration of 1.6 fibers/cc with values of several tenths of a cc most typical.

It should also be noted that in most of these counts all particles longer than 5μ with $L/D > 3$ that in the judgment of an experienced operator could possibly be asbestos were counted as such. This tended to include a proportion of particles that were not really asbestos.

3. Regarding contamination of adjacent surfaces during spraying, it should be stressed that the materials sprayed are being used in the finishing or as the finish for surfaces and parts. Where overspray occurs, it is normally removed immediately or covered with subsequent coatings. Where it is not removed, the binder sets and holds the asbestos. There are no dry clumps of unbound asbestos as could occur with the insulation spraying and which seems to be of particular concern to Dr. Selikoff. We are prepared to provide an application by application commentary for the systems tested in developing the supporting data if it will be useful.

4. Regarding subsequent manipulation of the coated surfaces, the texture sprays (Table I) the wall and roof sprays, (Table II) and the asphaltic roof and under coats (Table IV) are finished as applied and are not sanded or worked further to any extent. Certain of the resin applications (Table III) are cut, sanded or ground after the binder resin has hardened. A substantial amount of fiber count data has been obtained for this type of operation and ^{is} ~~was~~ provided in Tables V and VI. The highest level found in a commercial situation was 0.4 fibers/cc. In a laboratory test in a small closed room the maximum was 1.2 fibers/cc.
5. Regarding contamination of the workplace by waste materials, it should be noted that these materials cure or harden when used so the asbestos is bound in. An exception to this is the "empty" bags for the interior wall and ceiling texture sprays. These do present a potential exposure but are rigidly controlled by both the Federal and California OSHA regulations. It should also be noted that the removal of overspray on the floor is required after some texturing operations. This is normally done wet with a scraper and the floor is then finished.

We would like to reiterate that the proposed exemptions of certain additional questions from SB2419:

1. Can be accomplished within existing OSHA and EPA regulations;
2. Will generate very low levels of airborne asbestos contamination and that these dust levels are similar to those of already exempted operations;
3. Will insure the continuing economic well-being of those companies and workers in operations proposed for exemption.

Your continuing consideration of this matter is appreciated.

Very truly yours,

R. T. Monagan, President
California Manufacturers Association

Attachments

cc: Mr. E. H. Story - Local 16 AFL-CIO
2601 Mission Street - Room 707
San Francisco, California 94110

PROPOSED MODIFICATIONS IN CALIFORNIA HEALTH & SAFETY CODE,
CHAPTER 10.3, § 25910 (CALIFORNIA MARKS BILL, SB 2419)

Exempt the following, in addition to "cold process cutback asphalt roof coating":

1. Water-based interior texture sprays containing as sprayed a maximum of 3% by weight of asbestos and a minimum of 2% by weight of water-soluble starch, soya protein, polyvinyl alcohol, or equivalent binder.
2. Latex-based interior and exterior coatings containing as sprayed a maximum of 5% by weight of asbestos and a minimum of 8% by weight of vinyl, acrylic, vinyl-acrylic, or equivalent polymer binder.
3. Resin-based laminating and/or coating materials containing as sprayed a maximum of 12% by weight of asbestos and a minimum of 6% by weight of polyester resin, alkyd resin, epoxy resin alone or in combination with coal-tar, or an equivalent resin binder.
4. Asphaltic-based coatings containing as sprayed a maximum of 15% by weight of asbestos and a minimum of 40% by weight of cutback asphalt or emulsified asphalt binder.

The Honorable Milton Marks
Member, California State Senate
State Capitol, Room 2070
Sacramento, CA 95814

Dear Senator Marks:

In 1974 you carried SB 2419, which was signed into law on September 26 of 1974. This act, which added Chapter 10.3 to the Health and Safety Code, prohibited the spraying of any substance containing any amount of asbestos after July 1, 1976, in or upon any building or other structure during its construction, alteration, or repair, with the exception of cold process cutback asphalt roof coatings. In addition to the present statutory exemption of coal cutback asphalt roof coating, we believe that there are other applications which should also be exempted from the statute. These proposed additional exemptions will in no way jeopardize the health of the citizens of California and will, at the same time, protect the employment of workers in the California asbestos and related industries.

It is our firm belief that various materials containing small quantities of asbestos can be applied safely by spraying with no significant hazard, either to the occupational worker, or the general public. And further, that such spraying can be done in total compliance with Section 5206 of the General Industry Safety Orders for the State of California dealing with asbestos, and the EPA National Emission Standards for Hazardous Air Pollutants. Those applications which we propose for exemption generally involve the spraying of paints and coatings where asbestos is a minor but important constituent added to give critical properties to the material. These coatings are applied wet as a slurry or liquid, thus precluding the generation of airborne asbestos fibers in excess of established California and Federal regulations. Specifically, I have attached a proposed draft of a bill which would provide additional exemptions be added to the existing statute.

Supporting data from a variety of representative industrial operations in each class are provided in Tables I-IV. These data indicate that in no instance does the airborne concentration of asbestos fiber exceed either the time-weighted average for peak concentrations specified in Section 5203 of the General Safety Orders even for the lower level standard to be invoked on July 1, 1976.

Exhibit One attached provides additional information relevant to this proposal. This information was excerpted from the federal register and is part of the EPA background information included with the promulgated National Emissions Standards for Hazardous Air Pollutants. This material clearly indicates the undesirability of, and enforcement problems associated with, an absolute ban on asbestos spraying.

Adding of these exemptions to the present statute will assure the continuing economic viability of those segments of the mining, milling, and formulating industries involved with asbestos while protecting the health of the workers and the general public. These proposed amendments are fully supported by the Asbestos Information Association of North America. This organization consists of 22 member companies and associations which represent three-quarters of the asbestos mining, milling, manufacturing, and importing industries of the United States.

I would be pleased to further discuss this proposed amendment to the Health and Safety Code with you at any time.

Sincerely yours,

Robert T. Monagan
President

RTM:rk

Enclosure

The proposed standard would have prohibited the spraying of any material containing asbestos on any portion of a building or structure, prohibited the spraying of any material containing asbestos in an area directly open to the atmosphere, and limited emissions from all other spraying of any material containing asbestos to the amount which would be emitted if specified air-cleaning equipment were used. Comments received pointed out that this standard would: (1) Prohibit the use of materials containing only the trace amounts of asbestos which occur in numerous natural substances, (2) prohibit the use of materials to which very small quantities of asbestos are added in order to enhance their effectiveness, and (3) prohibit the use of materials in which the asbestos is strongly bound and which would not generate particulate asbestos emissions. The promulgated standard applies to those uses of spray-on asbestos materials which could generate major emissions of particulate asbestos material. For those spray-on materials used to insulate or fireproof buildings, structures, pipes, and conduits, the standard limits the asbestos content to no more than 1 percent. Materials currently used contain from 10- to 80-percent asbestos. The intent of the 1-percent limit is to ban the use of materials which contain significant quantities of asbestos, but to allow the use of materials which would: (1) Contain trace amounts of asbestos which occur in numerous natural substances, and (2) include very small quantities of asbestos (less than 1 percent) added to enhance the material's effectiveness. Although a standardized reference method has not been developed to quantitatively determine the content of asbestos in a material, there are acceptable methods available, based on electron microscopy, which independent laboratories have developed. Determining the asbestos content of a material with these methods costs approximately \$300, and the results are accurate within plus or minus 50 percent; these limits on accuracy were taken into account in establishing the 1-percent limitation.

WATER-BASED SYSTEMS
WITH WATER-SOLUBLE BINDERS

<u>Sample Designation</u>	<u>Commercial Application</u>	<u>Date</u>	<u>Binder</u>	<u>Approximate Wt. % Asbestos</u> ⁽¹⁾	<u>Spray Gun Type</u>	<u>Operation</u>	<u>Sample Time (Min.)</u>	<u>Asbestos Conc. (Fiber)</u>
<u>1 - INTERIOR TEXTURE SPRAYS</u>								
12	Ceiling spray.	6/14/73	Soya protein.	2	Air supported	Operator applying ceiling spray to condominium apts.	71	
82	"	"	"	2	"	Operator wiping walls after ceiling spray.	68	
3	Wall spray.	"	Starch	2	"	Operator applying wall spray to condominium apts.	51	0.1
35	"	"	"	2	"	Operator carrying hose during wall spraying.	34	
38	Ceiling spray.	"	"	1	"	Operator spraying ceiling of condominium.	14	
28	"	"	"	1	"	"	15	
56	"	"	"	1	"	"	15	
131	Wall spray.	"	"	2	"	Operator spraying walls of condominium.	21	
102	"	"	"	2	"	"	12	
K-3	Ceiling spray.	10/3/74	"	1	"	Operator applying ceiling spray to home.	19	
K-2	"	"	"	1	"	Operator "wiping" walls after ceiling spray.	22	
K-2	Wall spray.	"	"	2.5	"	Operator applying wall spray to home. Full coverage.	24	
I-25	"	"	"	2.5	"	Operator spraying glitter. Immediately after ceiling sprayed.	26	
2-49	Ceiling spray.	12/4/73	"	1	"	Operator applying ceiling spray to condominium apts.	20	
2-54	"	"	"	1	"	Operator "wiping" walls after ceiling spray.	24	

(1) Based on total formulation as sprayed.

Binders:

Type: Starch, polyvinyl alcohol, soya protein, or equivalent.

Content: Typically 6-8% by weight of the dry formulation before mixing with water, 2-4% as sprayed.

Main Uses: Interior wall and ceiling texture sprays.

(Where texture is applied to walls it must be covered with at least one coat of a latex or oil-based paint.)

Asbestos Content: Up to 3% by weight of the total formulation as sprayed.

Supporting Data: Table I.

WATER-BASED SYSTEMS

WITH LATEX BINDERS

<u>Sample Designation</u>	<u>Commercial Application</u>	<u>Date</u>	<u>Binder</u>	<u>Approximate Vt. % Asbestos</u> ⁽¹⁾	<u>Spray Gun Type</u>	<u>Operation</u>	<u>Sample Time (Min.)</u>	<u>Airborne Asbestos Concentration (Fibers/cc)</u>
<u>I - EXTERIOR COATINGS</u>								
N-6	Wall and Roof Spray.	10/4/74	Vinyl latex.	3.7	Air supported.	Operator spraying vertical wall panel.	15	0.0
J-3	"	"	"	2.8	"	"	12	0.2
C-2	"	"	Acrylic latex	0	"	"	8	0.2
N-43	Roof spray.	9/30/74	Acrylic latex.	0.7	Airless.	Operator spraying downward onto a large roof.	28	0.0
N-49	"	"	"	0.7	"	"	14	0.0

(1) Based on total formulation as sprayed.

Binders:

Type: Vinyl latex, acrylic latex, vinyl-acrylic latex, or equivalent.

Content: Polymer content of 10-20% by weight as sprayed.

Main Uses: Exterior coatings for buildings and mobil homes, including roofs.

Asbestos Rance: Up to 4% by weight of the total formulation as sprayed.

Supporting Data: Table II.

TABLE III

RESIN-BASED SYSTEMS

Sample Designation	Commercial Application	Date	Binder	Approximate Wt. % Asbestos (1)	Spray Gun Type	Operation	Sample Time (Min.)	Asbestos Concentration (Fibers)
I - POLYESTER RESINS								
A. General Purpose Laminating Resins								
69	Boat manufacture.	12/7/72	General purpose laminating resin.	0.5	Air-supported chopper.	Operator spraying molds with resin & chopped glass.	24	
L-13	"	10/31/74	"	0.5	"	Operator spraying resin & chopped fiber glass. (Includes roll-out time.)	16	
R-28	"	"	"	0.5	"	Operator spraying resin & chopped fiber glass.	5	
R-30	"	"	"	0.5	"	Operator spraying resin & chopped fiber glass.	4	
R-34	"	10/8/74	"	0.5	"	Operator spraying mold with resin. (No glass.)	55	
R-40	"	"	"	0.5	"	"	53	
I-12	"	"	"	0.5	"	"	35	
B. Chemical Resistant Resins								
J-21	Fiber-glass pipe manufacture.	8/13/74	Chemical resistant resin.	1.4	Airless.	Operator adjacent to automatic spray machine coating 28' mandrels.	23	
R-26	"	"	"	1.4	"	Operator wiping mandrels. In area near spraying.	14	
J-5	Ship coating.	10/3/74	Chemical resistant resin + chopped fiber glass.	0.7	Air-supported wand.	Roll-out man. In spraying area about 1/4 of time.	65	
J-7	"	"	"	0.7	"	Operator spraying ship hull in dry dock.	41	
R-28	"	"	"	0.7	"	"	23	

(1) Based on total formulation as sprayed.

TABLE III (continued)

RESIN BASED SYSTEMS

Sample Designation	Commercial Application	Date	Binder	Approximate Vt. % Asbestos ⁽¹⁾	Spray Gun Type	Operation	Sample Time (Min.)	Co (Ft)
<u>II - EPOXY RESINS</u>								
<u>A. Filled Epoxy</u>								
K-3	Ship coating.	10/2/74	Epoxy primer.	1.5	Airless.	Operator spraying outside & under a ship.	33	
K-10	"	"	"	1.5	"	"	8	
M-10	"	"	High build epoxy.	0	Air supported.	Operator spraying side of ship from scaffold.	31	
I-27	"	"	"	0	"	"	14	
J-1	"	"	"	0	"	"	60	
<u>B. Epoxy - Coal Tar</u>								
M-45	Coating dry dock.	10/1/74	Epoxy Coal-tar, solvent.	1	Airless.	Operator spraying side of dry dock from suspended platform.	11	
M-1	"	"	"	1	"	Operator spraying side of dry dock from fixed scaffold.	38	
K-3	Coating pipe interiors.	"	"	1	Air-supported wand.	Operator spraying interior of 3", 6" and 12" diameter pipe.	37	
<u>III - ALKYD RESIN PAINT</u>								
M-7	Painting building exterior.	10/6/74	Alkyd resin.	12	Airless gun.	Operator spraying building exterior wall.	9	
M-35	"	"	"	12	"	"	5	

(1) Based on total formulation as sprayed.

III. Resin-Based Systems

Binders:

(Type: Polyester resins, alkyd resins, epoxy resin alone or in combination with coal tar or equivalent resin.

Content: Range from ~6% in zinc-rich primer to ~49% for heavily filled alkyd to 99+ for polyester laminating resins.

Main Uses: Fiber glass reinforced boats, pipes, shower stalls, and similar articles.

Maintenance coatings for steel and concrete.

Intumescent and zinc-rich paint.

Exterior alkyd paints.

Asbestos Range: Up to 12% by weight of the total formulation as sprayed.

Supporting Data: Table III.

ASPHALTIC AND COAL-TAR BASED SYSTEMS

Sample Identification	Commercial Application	Date	Binder	Approximate Wt. % Asbestos ⁽¹⁾	Spray Gun Type	Operation	Sample Time (Min.)	Airborne Asbestos Concentration (Fibers/cc)
N-42	Auto undercoating (Sound deadener)	10/74	Cut back asphalt	15	Airless	Operator spraying on auto body.	7	0.2
N-31	"	"	"	15	"	"	6	1.5
2	Fibrated Roof Coating.	9/25/74	"	8	Air supported	Operator spraying against vertical steel surface.	-	0.02
2	"	10/11/74	"	8	"	"	-	0.11
3	"	9/26/74	"	8	Airless	"	-	0.03
3	"	10/11/74	"	8	"	"	-	0.07
-	Emulsified asphalt fibrated roof coating.	12/18/74	Steam refined, emulsified asphalt.	3	Air supported	Operator spraying against vertical steel surface.	43	0.16
-	"	"	"	3	Airless	"	23	0.17

(1) Based on total formulation as sprayed.

Binders:

Type: Cutback and emulsified asphalt and coal-tar materials or equivalent.

Content: Typically ~45%.

Main Uses: Automotive undercoating and sound deadener, roof coatings, foundation coatings.

Asbestos Content: Up to 15%.

Supporting Data: Table IV.

AIRBORNE ASBESTOS FIBER COUNTS -

GRINDING AND SANDING OF RESIN-BASED SYSTEMS CONTAINING

Sample Designation	Commercial Application	Date	Resin	Asbestos		Operation	Sample Time (Min.)	Airborne Asbestos Fiber Concentration (Fibers/cc 5%)
				Type	Approx. Wt. %			
1. THERMOSET RESIN (Polyester)								
—	Molding furniture parts	3/15/72	Polyester	RG-244	0.05	Operator hand sanding small parts.	45	0.002
—	"	"	"	"	0.05	Operator running power sander with integral hood.	45	0.002
1929-40-4	"	12/6/72	"	"	0.3	Operator sanding and grinding molded parts. Good hood & ventilating system on grinder.	23	0.3

1929-82-3	Fabrication of reinforced fiber glass pipe.	2/27/73	Polyester	RG-144	2-3	Operator pulls pipe along line. Saws off end with circular saw.	19	0.1
1929-82-4	"	"	"	"	2-3	Same operation as 1929-82-3.	49	0.1
1929-82-5	"	"	"	"	2-3	Operator removing end of pipe with scarfing machine.	45	0.04
I-13	"	8/13/74	"	RG-244	1.4	Operator shaping end of pipe with bell & spigot machine.	16	0.3
I-6	"	"	"	"	1.4	Operator cutting off pipe end and light grinding on exterior surface.	17	0.2

I-26	Fabrication of FRP tanks and pipe.	8/13/74	Polyester	RG-244	1.5	Operator grinding inside of 13' I.D. x 26' tank.	16	0.4
C-8	"	"	"	"	1.5	Continuation of same operation as I-25.	5	0.3
I-39	"	"	"	"	1.5	Operator grinding edges of miscellaneous small parts.	25	0.3

1929-84-4	Production of artificial bricks.	3/8/73	Polyester	RG-244	2.0	Operator cutting with sabre saw.	44	0.1
1929-84-5	"	"	"	"	2.0	Operator trimming with sabre saw.	39	0.2

I-20	Production of fiber glass boats.	11/26/74	Polyester	RG-244	0.5	Operator grinding inside of boat hull.	11	0.0
I-25	"	"	"	"	0.5	Operator grinding.	4	0.0

TABLE VI

AIRBORNE ASBESTOS FIBER COUNTS

GRINDING OF RESIN PLAQUES CONTAINING ASBESTOS IN A SMALL (8'x8'x8.5') CLOSED ROOM

Airborne Asbestos Fiber Concentration (fibers/cc > 5 μ)										
Plaque Composition							After			
Resin		Chrysotile		Fiber Glass		Lime-stone Wt. %	During Grind (7 Min.)		Grind (90 Min.)	
Type	Wt. %	Type	Wt. %	Wt. %	Wt. %		Operator Personal Sample	Sample from 5 Ft. Level Room Corner	Sample from 5 Ft. Level Room Corner	
Polyester	79.2	RG-244	0.8	20.0	-	-	0.0	0.0	0.0	0.0
Polyester	99.2	RG-244	0.8	-	-	-	0.0	0.0	0.0	0.0
Polyester	98.0	RG-244	2.0	-	-	-	0.0	0.2	0.01	0.01
Polyester	96.0	RG-244	4.0	-	-	-	0.7	1.2	0.01	0.01
Epoxy	76.0	RG-144	4.0	20.0	-	-	0.2	0.2	0.05	0.05
Polyester	35.0	RG-110	5.0	10.0	10.0	40.0	0.6	1.2	0.02	0.02
Polyester	35.0	RG-110	10.0	10.0	10.0	35.0	0.0	0.0	0.0	0.0
Polyester	30.0	SG-200	18.0	-	2.0	50.0	0.3	0.9	0.06	0.06