

WITHDRAWN

**NBS
Voluntary
Product
Standard**

PS 44-71

A UNITED STATES
DEPARTMENT OF
COMMERCE
PUBLICATION



**DO NOT REMOVE
LAST COPY**

**U.S.
DEPARTMENT
OF
COMMERCE

National
Bureau
of Standards**

UNITED STATES DEPARTMENT OF COMMERCE
Maurice H. Stans, Secretary

NATIONAL BUREAU OF STANDARDS
Lewis M. Branscomb, Director

DO NOT REMOVE
1909 124
Voluntary Product Standard

PS 44-71

Paper Ice Bag Sizes

Technical Standards Coordinator: C. B. Phucas

Abstract

This Voluntary Product Standard covers the dimensions and the capacities of paper ice bags intended for use in the packaging of cubed, sized, crushed, and block ice. Methods of measuring and for identifying bags that conform to this standard are provided.

Key words: Bag sizes, ice; ice bag sizes; paper ice bag sizes.

Nat. Bur. Stand. (U.S.), Prod. Stand. 44-71, 12 pages (Sept. 1971)
CODEN: XNPSA

Contents

	Page
1. Purpose -----	1
2. Scope and Classification -----	1
2.1. Scope -----	1
2.2. Classification -----	1
3. Requirements -----	1
3.1. General -----	1
3.2. Dimensions and tolerances -----	1
4. Inspection and Test Procedures -----	1
4.1. General -----	1
4.2. Measurement -----	4
4.2.1. Self-opening style bags -----	4
4.2.2. Satchel bottom bags -----	4
5. Identification -----	5
6. Effective Date -----	5
7. History of Project -----	5
8. Standing Committee -----	6
9. Acceptors -----	7

VOLUNTARY PRODUCT STANDARDS

Voluntary Product Standards are standards developed under procedures established by the Department of Commerce (15 CFR Part 10, as amended, May 28, 1970). The standards may include (1) dimensional requirements for standard sizes and types of various products, (2) technical requirements, and (3) methods of testing, grading, and marking. The objective of a *Voluntary Product Standard* is to establish requirements which are in accordance with the principal demands of the industry and, at the same time, are not contrary to the public interest.

Development of a VOLUNTARY PRODUCT STANDARD

The Office of Engineering Standards Services of the National Bureau of Standards has been assigned by the Department of Commerce the responsibility to work closely with scientific and trade associations and organizations, business firms, testing laboratories, and other appropriate groups to develop *Voluntary Product Standards*. The Bureau has the following role in the development process: It (1) provides editorial assistance in the preparation of the standard; (2) supplies such assistance and review as is required to assure the technical soundness of the standard; (3) acts as an unbiased coordinator in the development of the standard; (4) sees that the standard is representative of the views of producers, distributors, and users or consumers; (5) seeks satisfactory adjustment of valid points of disagreement; (6) determines the compliance with the criteria established in the Department's procedures cited above; and (7) publishes the standard.

Industry customarily (1) initiates and participates in the development of a standard; (2) provides technical counsel on a standard; and (3) promotes the use of, and support for, the standard. (A group interested in developing a *Voluntary Product Standard* may submit a written request to the Office of Engineering Standards Services, National Bureau of Standards, Washington, D.C. 20234.)

A draft of a proposed standard is developed in consultation with interested trade groups. Subsequently, a Standard Review Committee is established to review the proposed standard. The committee, appropriately balanced, includes qualified representatives of producers, distributors, and users or consumers of the product being standardized. When the committee approves a proposal, copies are distributed for industry consideration and acceptance. When the acceptances show general industry agreement, and when there is no substantive objection deemed valid by the Bureau, the Bureau announces approval of the *Voluntary Product Standard* and proceeds with its publication.

Use of a VOLUNTARY PRODUCT STANDARD

The adoption and use of a *Voluntary Product Standard* is completely voluntary. *Voluntary Product Standards* have been used most effectively in conjunction with legal documents such as sales contracts, purchase orders, and building codes. When a standard is made part of such a document, compliance with the standard is enforceable by the purchaser or the seller along with other provisions of the document.

Voluntary Product Standards are useful and helpful to purchasers, manufacturers, and distributors. Purchasers may order products that comply with *Voluntary Product Standards* and determine for themselves that their requirements are met. Manufacturers and distributors may refer to the standards in sales catalogs, advertising, invoices, and labels on their product. Commercial inspection and testing programs may also be employed, together with grade labels and certificates assuring compliance, to promote even greater public confidence. Such assurance of compliance promotes better understanding between purchasers and sellers.

Paper Ice Bag Sizes

Effective April 30, 1971 (See section 6.)

(This Standard, initiated by the National Ice Association, has been developed under the *Procedures for the Development of Voluntary Product Standards*, published by the U.S. Department of Commerce. See Section 7, *History of Project*, for further information.)

1. PURPOSE

The purpose of this Voluntary Product Standard is to establish nationally recognized dimensions for paper bags used in the packaging of ice. It is intended to provide a basis for common understanding among producers, distributors, and users of this product.

2. SCOPE AND CLASSIFICATION

2.1. **Scope**—This Voluntary Product Standard covers the dimensions and the capacities of paper bags intended for use in the packaging of cubed, sized, crushed, and block ice. Methods of measuring and for identifying bags that conform to this Standard are provided.

2.2. **Classification**—The paper bags covered by this Standard are classified by their style as follows: Self-opening (regular and vending machine), Satchel bottom. (See section 4, figures 1 and 2.)

3. REQUIREMENTS

3.1. **General**—Products represented as complying with this Voluntary Product Standard shall meet all of the requirements specified herein.

3.2. **Dimensions and tolerances**—The dimensions of the bags shall be as specified in tables 1 through 4 when measured in accordance with 4.2. The tolerance on length shall be plus or minus $\frac{1}{4}$ inch. The tolerance on face width and gusset width shall be plus or minus $\frac{1}{8}$ inch; except that the bag perimeter shall be within plus $\frac{1}{4}$ inch, minus $\frac{1}{8}$ inch.

4. INSPECTION AND TEST PROCEDURES

4.1. **General**—The inspection and test procedures contained in this section are to be used to determine the conformance of products to the requirements of this Voluntary Product Standard. Each producer or distributor who represents his products as conforming to this Standard may utilize statistically based sampling plans which are appropriate for each particular manufacturing process but shall keep such essential records as are necessary to document with a high degree of assurance his claim that all of the requirements of this Standard have been met. Additional sampling and testing of the product, as may be agreed upon between purchaser and seller, is not precluded by this section.

TABLE 3. Satchel bottom bags for cubed, sized, or crushed ice

Bag capacity (pounds of ice)	Face width (inches)	Bag dimensions		Perimeter (inches)
		Bottom (inches)	Length (inches)	
25	14-1/2	4-3/4	27	29
	17	6	36	
	18-1/8 19-1/4	7 7	34 31-1/2	
50	17	6	36	34 36-1/4 38-1/2
	18-1/8	7	34	
	19-1/4	7	31-1/2	

TABLE 4. Self-opening style (SOS) bags for block ice

Size of block (pounds)	Face width (inches)	Bag dimensions		Perimeter (inches)
		Gusset width (inches)	Length (inches)	
10, 12-1/2	8-3/8	5-1/8	15 to 18 in 1-inch increments	27 27-3/4
	8-3/8	5-1/2		
25	11-1/2	8-1/2	16 to 20 in 1-inch increments	40

4.2. Measurement

4.2.1. **Self-opening style bags**—Self-opening style bags (see figure 1) shall be measured as follows:

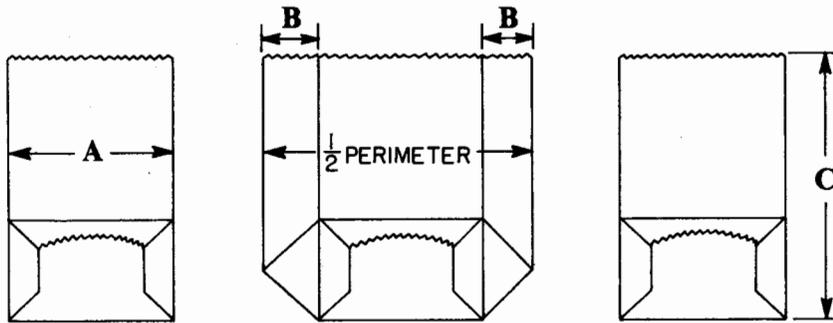


FIGURE 1. *Self-opening style bag.*

(1) Face width (A)—Measure across the front of the folded bag, just above the top of the bottom fold.

(2) Gusset width (B)—Spread the bag so that the tucks normally behind the face are fully extended outward. Press the bag flat and measure full width as close to the bottom fold as possible. This gives $\frac{1}{2}$ perimeter. Subtract the face width (A) from this measurement to get the gusset width.

(3) Bag length (C)—Measure along the center of the front face of the bag, from the lower bottom fold to the top of the serrated edge which does not have the thumb cut.

(4) Perimeter—Find the $\frac{1}{2}$ perimeter as indicated in (2) above, and double that measurement.

4.2.1.1. **Cubic capacity of SOS bags**—The cubic capacity of SOS bags is the product of the face width, gusset width, and bag length ($A \times B \times C$).

4.2.2. **Satchel bottom bags**—Satchel bottom bags (see figure 2) shall be measured as follows:

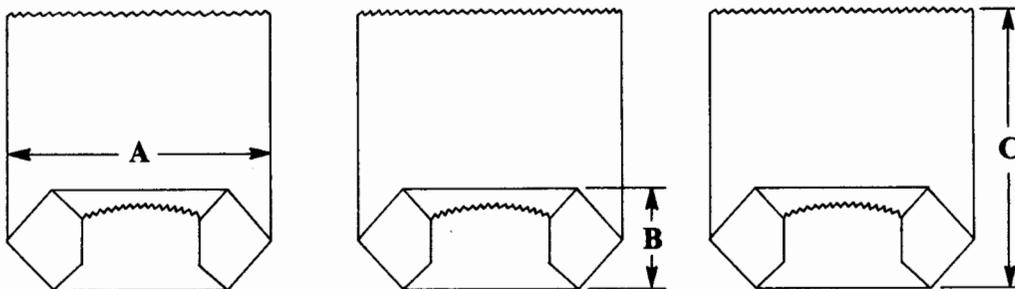


FIGURE 2. *Satchel bottom bag.*

(1) Face width (A)—Measure across the front of the bag, just above the top of the bottom fold.

(2) Bottom (B)—Measure along the center from the lower fold of the bottom to its upper fold.

(3) Bag length (C)—Measure along the center of the bag from the lower bottom fold to the top of the serrated edge which does not have the thumb cut.

(4) Perimeter—Find the face width as indicated in (1) above, and double that measurement.

4.2.2.1. Cubic capacity of satchel bottom bags—To determine the cubic capacity of satchel bottom bags, subtract the bottom from the face width and multiply the difference times the bag length and the bottom ($[A-B] \times B \times C$).

5. IDENTIFICATION

In order that purchasers may identify products conforming to all requirements of this Voluntary Product Standard, producers and distributors may include a statement of compliance in conjunction with their name and address on product labels, invoices, sales literature, and the like. The following statement is suggested when sufficient space is available:

These bags conform to all of the dimensional requirements established in Voluntary Product Standard PS 44-71, developed cooperatively with the industry and published by the National Bureau of Standards under the *Procedures for the Development of Voluntary Product Standards* of the U.S. Department of Commerce. Full responsibility for the conformance of this product to the standard is assumed by (name and address of producer or distributor).

The following abbreviated statement is suggested when available space on labels is insufficient for the full statement:

These bags conform to the dimensional requirements of PS 44-71, (name and address of producer or distributor).

6. EFFECTIVE DATE

The effective date of this Voluntary Product Standard is the date upon which reference to the Standard may be made by producers, distributors, users and consumers, and other interested parties. Compliance by producers with all of the requirements of this Voluntary Product Standard may not actually occur until some time after its effective date. Products shall not be represented as conforming to this Voluntary Product Standard until such time as all requirements established in the Standard are met. The effective date of this Standard is April 30, 1971.

7. HISTORY OF PROJECT

On May 2, 1969, the National Ice Association submitted to the National Bureau of Standards a proposal for a standard for paper ice bag sizes with the request that it be developed under the *Procedures for the Development of Voluntary Product Standards*. A standard for this product was needed to provide manufacturers, distributors, and users with a basis for common understanding

of standard paper ice bag sizes and to reduce the number of sizes being manufactured.

The Standard was approved by a Standard Review Committee composed of manufacturers, distributors, and users of the product. Based on the recommendation of the Standard Review Committee, the Standard was then circulated to all known manufacturers and to a representative list of distributors and users of the product to determine its acceptability. The response to this circulation indicated a consensus of acceptability as defined in the *Procedures for the Development of Voluntary Product Standards*.

On April 6, 1971, the Standard, designated PS 44-71, *Paper Ice Bag Sizes*, was approved for publication by the National Bureau of Standards to be effective April 30, 1971.

Technical Standards Coordinator:

Charles B. Phucas, Office of Engineering Standards Services,
National Bureau of Standards, Washington, D.C. 20234

8. STANDING COMMITTEE

The individuals whose names are listed below constitute the membership of the Standing Committee for this Standard. The function of the committee is to review all proposed revisions and amendments in order to keep this Standard up to date. Comments concerning this Standard and suggestions for its revision may be addressed to any member of the committee or to the Office of Engineering Standards Services, National Bureau of Standards, Washington, D.C. 20234, which acts as secretary for the committee.

Representing Producers

Robert Buck (Chairman), Union Camp Corporation, 1600 Valley Road, Wayne, New Jersey 07470
Paul J. Bitterly, International Paper Company, 220 East 42d Street, New York, New York 10017
Fred C. McCall, Olinkraft, Inc., P. O. Box 488, West Monroe, Louisiana 71291
W. Stanley Nordstrom, Crown Zellerbach Corporation, One Bush Street, San Francisco, California 94126

Representing Distributors

J. J. Ballard, Jr., Ballard Sales Company, P. O. Box 1121, Fort Worth, Texas 76101
Bert Hosselkus, Vivian Manufacturing Company, 4136-38 Folsom Avenue, St. Louis, Missouri 63110
Ray Taylor, E. L. Lowie & Company, P. O. Box 2188, Gastonia, North Carolina 28052
K. D. Wells, Sisco Products, Inc., Buford, Georgia 30518

Representing Users

Joe D. Atkinson, Atkinson Ice Company, 537 South Main Street, Sullivan, Indiana 47882

(812) 268-4257

haven't used paper
made in 1971

Monte Bass, Rainier Ice & Cold Storage, 6004 Airport Way South,
Seattle, Washington 98108
Henry W. Lang, Jr., Acme Ice Company, 3604 West 59th Street,
Chicago, Illinois 60629
Paul Reed, The Southland Corporation, Reddy Ice Division, 2828
North Haskell Avenue, Dallas, Texas 75221

Representing General Interest

Irene I. Boone, Bureau of Standard Weights and Measures, Room
B 130, Highway and Safety Building, Harrisburg, Pennsylvania
17120

9. ACCEPTORS

The producers, distributors, users, and others listed below have individually indicated in writing their acceptance of this Voluntary Product Standard prior to its publication. The acceptors have indicated their intention to use this Standard as far as practicable but reserve the right to depart from it when necessary. The list is published to show the extent of recorded public support for this Standard.

ASSOCIATIONS

National Ice Association, Washington, D.C.

PRODUCERS

Chatfield & Woods Sack Company, Cincinnati, Ohio	Gulf States Paper Corporation, Tuscaloosa, Alabama
Continental Can Co., Inc., New York, New York	International Paper Co., New York, New York
Crown Zellerbach Corporation, San Francisco, California	Olinkraft, Inc., West Monroe, Louisiana
	St. Regis Paper Company, Dallas, Texas
	Union Camp Corporation, Wayne, New Jersey

DISTRIBUTORS

Ballard Sales Company, Fort Worth, Texas	Lowie, E. L., & Company, Gastonia, North Carolina
Consumers Ice Manufacturing Co., Inc., Wilkes-Barre, Pennsylvania	Polar Ice Co., Beaumont, Texas
Council Manufacturing Corporation, Fort Smith, Arkansas	R. I. Ice Co., Inc., East Providence, Rhode Island
Ice Plant Equipment Co., Inc., Philadelphia, Pennsylvania	Sisco Products, Inc., Buford, Georgia
Index Supply Co., Inc., La Porte, Indiana	Vivian Manufacturing Company, St. Louis, Missouri
Jasper Ice and Fuel Co., Jasper, Indiana	

USERS

Alexander, James R., Kannapolis, North Carolina	Cash, M. F., Jr., Harrison, Arkansas
Allen, O. Holt, Columbia, South Carolina	Cheatwood, Hershel W., Blythe, California
Archer, Joseph P., Kansas City, Missouri	Cleckler, Cecil E., Thorsby, Alabama
Atkinson, James D., Sullivan, Indiana	Conklin, George V., Riverhead, New York
Austin, Ed, Oklahoma City, Oklahoma	Cook, M. L., Jonesboro, Arkansas
Bass, Monte, Seattle, Washington	Cooley, William S., El Paso, Texas
Beadle, Frank J., Fulton, Kentucky	Cooper, Walter C., Sacramento, California
Beaman, B. S., Houston, Texas	Cox, James L., Carlsbad, New Mexico
Belcher, Robert L., Pueblo, Colorado	Cox, William Thomas, Gallatin, Tennessee
Berchtold, Robert, Riverside, California	Crump, J. H., Valdosta, Georgia
Boardman, James S., Columbus, Ohio	Culliton, E. H., Jr., Buffalo, New York
Botkin, D. M., Everett, Washington	Dailey, Harold R., New Castle, Indiana
Bowen, W. H., Southern Pines, North Carolina	Davis, Henry H., Lake Charles, Louisiana
Bramstedt, Mary, St. Louis, Missouri	Day, R. Harold, Galesville, Maryland
Buck, William C., Columbus, Georgia	De Graff, Ed, Muskegon, Michigan
Burchfiel, R. V., Casper, Wyoming	DeShon, Richard N., St. Joseph, Missouri
Burruss, William A., Ruther Glen, Virginia	Duffner, Bernard W., De Soto, Missouri
Bush, G. B., Gallipolis, Ohio	Dumas, W. A., El Dorado, Arkansas
Carlson, A. R., Chicago, Illinois	Duncan, Thomas O., Claremore, Oklahoma
Carney, Cy, Fayetteville, Arkansas	Dunn, Carol, Spencer, Iowa
Carver, Kenneth R., Medina, Ohio	Earles, J. P., Jr., Bogalusa, Louisiana
	Edmondson, J. E., Tifton, Georgia

Eggert, Herman, Medford, Wisconsin
 Emmett, Fred, Dixon, Missouri
 Enfinger, Harvell, Milton, Florida
 Espy, J. Bruce, Denver, Colorado
 Fabry, Joe E., McAlester, Oklahoma
 Farr, Asael, & Sons, Co., Ogden, Utah
 Finnegan, Raymond J., Manchester, Connecticut
 Fisher, Paul N., Lancaster, Pennsylvania
 Flynn, Keith B., High Point, North Carolina
 Francis, Carl A., Monroe, Louisiana
 Gabriel, K. L., Santa Ana, California
 Gambill, M. L., Sheffield, Alabama
 Gautier, Quin, Pascagoula, Mississippi
 Getchell, Ralph, Jr., Brewer, Maine
 Goheen, Edwin G., Vallejo, California
 Graeber, Clyde R., Sr., China Grove, North Carolina
 Groth, Ernest H., Newington, Connecticut
 Gutierrez, Lee P., Jr., Biloxi, Mississippi
 Hagerty, David, Jr., Higginsville, Missouri
 Hammon, Glee, Anna, Illinois
 Hanlin, K. P., Slidell, Louisiana
 Hardwick, J. F., South Bend, Indiana
 Hart, C. F., Sarasota, Florida
 Harter, Austin G., Cape Girardeau, Missouri
 Hatem, James A., Fayetteville, North Carolina
 Heath, George O., Jr., Macon, Georgia
 Hendler, Richard, Mamaroneck, New York
 Hendrix, G. T., Jr., Camden, South Carolina
 Hogan, Wilbur, J., Springfield, Massachusetts
 Holland, Earl, Canton, Mississippi
 Holt, Wythe W., Hampton, Virginia
 Howell, D. M., Greensboro, North Carolina
 Ingram, Melvin S., Butler, Missouri
 Johnson, Ennis O., Gulfport, Mississippi
 Johnson, Paul D., Plainview, Texas
 Kennedy, George E., Scottsbluff, Nebraska
 Kile, Willard H., Sr., Bloomsburg, Pennsylvania
 King, Richard, Blytheville, Arkansas
 Klinke, John S., Alton, Illinois
 Kohler, Warren A., San Diego, California
 Lander, J. A., San Antonio, Texas
 Lane, William C., Westfield, Massachusetts
 La Rue, John J., Scranton, Pennsylvania
 Laws, Sadie A., Leesville, South Carolina
 Leonard, W. H., Dyesburg, Tennessee
 Leyendecker, P. J., Haddonfield, New Jersey
 Lindquist, George A., Hartford, Connecticut
 Lobertini, Leo, La Follette, Tennessee
 Lockett, George T., Sedalia, Missouri
 Lohman, William H., Lawrence, Kansas
 Lott, E. L., Clovis, New Mexico
 Lowe, Ira M., Lima, Ohio
 Lowe, T. B., Wilson, North Carolina
 Lunt, Howard E., Las Cruces, New Mexico
 Mahle, Oscar S., Washington, D.C.
 Marks, T. S., Little Rock, Arkansas
 Mason, Edgar, Indio, California
 Massey, Revis D., Canadian, Texas
 Massey, William U., West Point, Virginia
 Mattox, Robert L., Brazil, Indiana
 Maxey, Robert F., Santa Monica, California
 McCann, C. W., Petersburg, Virginia
 McClellan, Clifford A., East Hartford, Connecticut
 McKenny, Marjorie J., Appleton, Wisconsin
 McLaughlin, James R., Cedartown, Georgia
 Meindell, Harold, Anderson, Indiana
 Mertz, Donald F., Northumberland, Pennsylvania
 Morgan, S. R., Jr., Meridian, Mississippi
 Morton, Craig, McAllen, Texas
 Moses, D. M., Sumter, South Carolina
 Mulgrew, James P., Dubuque, Iowa
 Muller, John G., Kansas City, Missouri
 Murphy, Donald W., Houma, Louisiana
 Myers, Roy G., Falls City, Nebraska
 Neuman, Edward W., York, Pennsylvania
 O'Donnell, John J., Collinsville, Illinois
 Osborn, Fred W., Jr., Decatur, Alabama
 Parrish, Harry J., Manassas, Virginia
 Pena, John, West Falmouth, Massachusetts
 Powell, C. C., Philadelphia, Pennsylvania
 Prunty, J. C., Bossier City, Louisiana
 Purcell, J. T., Murphysboro, Illinois
 Ramsay, Jack K., Hearne, Texas
 Reed, Paul, Dallas, Texas
 Reutter, James L., Lansing, Michigan
 Riddleberger, William I., Lewistown, Pennsylvania
 Romberg, Carl B., II, Gainesville, Georgia
 Ruggles, Ronald, Canton, Ohio
 Scarbrough, Juliet M., Anniston, Alabama
 Schultz, Edward G., Janesville, Wisconsin
 Scoon, J. Robert, Rock Hall, Maryland
 Smith, Allan, Galeburg, Illinois
 Smith, Walter H., Fountain Inn, South Carolina
 Smoke, W. G., Jr., Gaffney, South Carolina
 Snedden, B., III, Bakersfield, California
 Stackhouse, H. F., Conway, South Carolina
 Staley, Arthur L., Tacoma, Washington
 Swain, Charles B., Albany, New York
 Tally, O. E., Homerville, Georgia
 Taylor, B. H., Jr., Rocky Mount, North Carolina
 Taylor, Clark R., Spokane, Washington
 Todd, Waldo D., Santa Fe, New Mexico
 Turner, Raymond H., Elmira, New York
 Van Hook, William, Lincoln, Nebraska
 Veale, William C., Pasadena, Texas
 Vigilance, J. M., Fairmont, West Virginia
 Vigilance, William A., Clarksburg, West Virginia
 Walden, Tommie E., Minden, Louisiana
 Walker, Cloyd M., Johnson City, Tennessee
 Wallace, Fred, Griffin, Georgia
 Waterman, Jack R., Tucumcari, New Mexico
 Weaver, Clarence, Columbus, Indiana
 Wells, R. L., Forest Park, Georgia
 Welsing, Donald M., Green Bay, Wisconsin
 Whaley, John P., Ocean City, Maryland
 Wilcoxon, E. R., San Francisco, California
 Williams, Ralph L., Rapid City, South Dakota
 Yarbrough, C. George, Jr., Pensacola, Florida
 Young, Robert A., Waterloo, Iowa