

PACKINGS

PACKING CODES

GASKETS AND PACKINGS
ENGINEERING STANDARD

ISSUED	MAY 1947
THIS PAGE REVISED	MAY 1975
STANDARD REAFFIRMED	MAY 1975

U 1 C

Page 1 of 2

1. SCOPE

This standard provides a code identification of mechanical packing in Table 1 for convenient reference purposes on drawings and in correspondence. An index to obsolete code numbers is listed in Table 2. Acceptable materials and vendors for Du Pont Packing Codes are listed in SU1C. Refer to U2C for packing selection. General packing reference standards, including those for O-rings, are given in section 2.

2. GENERAL REFERENCES

U10B - O-Ring Application
 U11B - O-Ring Gland Design
 U13B - O-Ring Elastomers
 U1D - Stuffing Box for Stationary Sealing
 U2D - Stuffing Box Proportions for Rotating Shafts
 U1E - Packing Lubrication for Rotating and Reciprocating Equipment
 PH 4 - Packing Installation

TABLE 1 - ROD PACKING CODES

Du Pont Code	Description	Use	Maximum Temperature	
			°C	°F
R-3	White asbestos square-plaited braid, mineral oil and graphite	General service rod packing, high-speed rotary shafts, water, oil, ammonia, weak acids, caustics	175	350
R-6	White asbestos braid-over-braid, mineral oil and graphite	Valve stems, reciprocating rods, general chemical service, except corrosive acids	350	650
R-13X	90 percent white asbestos braid-over-braid, 20 percent high flash-point lubricant, brass wire inserted, graphited	High-temperature valve stems and rods, steam, oils, air, gas, tar, water	400	750
R-14	98 percent white asbestos Inconel inserted over plastic core of asbestos and graphite - surface graphite only	High-temperature valve stems, expansion joints on steam, air, water, gas, and mineral oils	550	1000
R-15	White asbestos square-plaited braid, solvent-resistant lubricant and graphite	Reciprocating rods and rotary shafts, oils, solvents such as benzene, aniline, ethyl chloride, kerosene	175	350
R-16	White asbestos lattice braid, 20 percent high flash-point lubricant and graphite	High-speed rotary shafts, high-temperature and pressures especially designed for autoclave agitator shafts	400	750
R-35	100 percent laminated graphite - preout ring must be custom fitted to stuffing box	High-speed rotating shafts, high-temperature valve stems and shafts, general chemical service except strong oxidizing conditions	350 ⁽¹⁾	550 ⁽¹⁾
R-35R	100 percent laminated graphite - continuous ribbon same as R-35 - more flexible field installation		1000 ⁽²⁾	1830 ⁽²⁾
R-35D	100 percent laminated graphite - die formed from R-35R, same as R-35 - more uniform installation than R-35R			
R-50	White asbestos braid over asbestos or plastic Teflon® TFE-fluorocarbon resin core, "Teflon" impregnated throughout	Severe chemical service except strong acids, medium surface speed	300	550
R-53	White asbestos, lattice braid, "Teflon" impregnated throughout and chemical-resistant lubricant	Severe chemical service except strong acids, high surface speed	300	550
R-54	White "Teflon" TFE yarn, lattice braid, "Teflon" impregnated throughout	Severe chemical service, medium surface speed	300	550
R-54S	White "Teflon" TFE yarn, lattice braid, "Teflon" impregnated throughout and chemical-resistant lubricant	Similar to R-54 but more pliable, easier to run in	300	550

Table 1 cont'd on page 2.

Notes:

- (1) This maximum temperature limit applies to oxidizing conditions.
 (2) This maximum temperature limit applies to nonoxidizing conditions.

Design Engineers - Do not use U1C as a reference on drawings. On drawings specifying Du Pont code numbers, reference should be made to SU1C which can be sent to Du Pont contractors to show acceptable materials and vendors for each code numbers.

Vendors and merchandise designations are given to describe materials and may not include all acceptable products. Substitutions by suppliers are to be made only on approval of the local authority initiating the use of this standard



SUBCOMMITTEE NO. 10

DUP 0372273

PLAINTIFF'S
EXHIBIT
DUP-780

DU 000412

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TABLE 1 - ROD PACKING CODES (CONT'D)

Du Pont Code	Description	Use	Maximum Temperature	
			°C	°F
R-55	100 percent "Teflon" V-Ring	Severe chemical service, valve stems, and reciprocating rods	300	550
R-56	100 percent "Teflon" cup and cone rings	Severe chemical service, valve stems	300	550
R-57	25 percent glass-filled "Teflon" V-Rings	Severe chemical service, valve stems, and reciprocating rods - greater resistance to thermal distortion	300	550
R-58	25 percent glass-filled "Teflon" cup and cone rings	Severe chemical service, valve stems - greater resistance to thermal distortion	300	550
R-59	Unfilled, extruded, "plastic" "Teflon" TFE, square cross section	Maximum sealing with minimum gland pressure. Use with end rings of R-53, or R-54 depending upon service	300	550
R-60	White asbestos jacket, "Teflon" TFE impregnated with core of asbestos or plastic "Teflon" TFE. Sizes 1/2 inch and 3/4 inch round	Column tray packing, see G24. Severe chemical service, except strong acids	300	550
R-61	White "Teflon" TFE yarn jacket with core of "Teflon" TFE plastic impregnated with "Teflon" TFE. Sizes 1/2 inch and 3/4 inch round	Column tray packing, see G24. Severe chemical service, strong acids, including nitric and mixed acids	300	550

TABLE 2 - INDEX TO OBSOLETE CODE NUMBERS

Rod Packing		
Du Pont Code	Description	Date Obsolete
R-1	Flax square-plaited braid, soft tallow	Dec 1964
R-2	Flax square-plaited braid, hard wax	Dec 1964
R-3W	Code R-3 with lead wire insert	Dec 1964
R-4B	Blue African asbestos square-plaited braid	Oct 1962
R-5B	Blue African asbestos braid-over-braid	Oct 1962
R-7	90 percent white asbestos cloth, Buna-S frictioned	Dec 1964
R-8T	White asbestos twisted	Dec 1964
R-9	Light cotton duck, Buna-S frictioned	Dec 1964
R-10	Light cotton duck, Buna-S frictioned, plied diagonally	Dec 1964
R-12	Code R-4B with nonnitrateable lubricant	Oct 1962
R-13	Code R-6 with no lubricant	Dec 1964
R-17	Code R-16 with more lubricant	Oct 1962
R-20	Plastic asbestos with lead particles	Dec 1964
R-21	Plastic asbestos with lead particles, neoprene bonded	Dec 1964
R-32	Aluminum foil twisted and wrapped upon itself, castor oil, and graphite	May 1975
R-33	Aluminum foil twisted over asbestos core, castor oil, and graphite	May 1975
R-51	Blue African asbestos braid over Blue African asbestos or plastic "Teflon" core, "Teflon" impregnated throughout	Nov 1966
R-62	Blue African asbestos, square-plaited braid, "Teflon" impregnated throughout	Nov 1966
R-54P	White "Teflon" TFE yarn, square-plaited braid, "Teflon" impregnated throughout and chemical-resistant lubricant	Nov 1966
Wick and Rope Packing		
W-1A	First grade, 1/4-inch, white asbestos wick	Dec 1964
W-1B	First grade, 3/8-inch and over, white asbestos rope	Dec 1964
W-2A	Second grade, 1/4-inch, white asbestos wick	Dec 1964
W-2B	Second grade, 3/8-inch and over, white asbestos rope	Dec 1964
W-3A	1/4-inch, blue asbestos wick	Dec 1964
W-3B	3/8-inch and over, blue asbestos rope	Dec 1964
W-4A	1/4-inch, 99 percent white asbestos wick	Dec 1964



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TABLE 2 - "TEFLON" ENVELOPE GASKET CODES*

Vendor ⁽¹⁾	G-52	G-53	G-54	G-55	G-56	G-57	G-58	G-59	G-60	G-61
Anchor	1106-52	1106-53	1106-54	1106-55	1106-56	1106-57	1106-58	1106-59	1106-60	-
Chem Flow	C740H	C742H	C741K	C743K			C741E	C743E	C744A	-
Dore	E-16-S with fabric	E-16-V with fabric	E-26-S with fabric	E-26-V with fabric	E-19-S	E-19-V	E-18-S	E-18-V	E-19-BV	-
Enflo	52-701	53-702	54-703	55-704	-	-	58-705	59-706	60-707	-
Garlock	8532	8533	8535	8542	8543	8544	8547	8548	8549	9004
Johns-Manville	-	-	-	-	-	-	933-M- 61	933-C- 61	933-C- 8361	-

* Vendors style numbers apply only to materials manufactured in the United States. Similar styles and names by foreign affiliates are not necessarily equal.

(1) See Table 4 for vendor identification list.

TABLE 3 - SPIRAL-WOUND GASKET CODES†

Vendor ⁽¹⁾	G-62	G-62-6	G-62T	G-62T6	G-63	G-63-6	G-63T	G-63T6	G-64	G-65	G-66	G-67
Anchor	X	X	X	X	X	X	X	X	X	X	X	X
Flexitallic	X	X	X	X	X	X	X	X	X	X	X	X
Garlock	X	X	X	X	X	X	X	X	X	X	X	X
Johns-Manville	X	X	X	X	X	X	X	X	X	X	X	X
Lamons	X	X	X	X	X	X	X	X	X	X	X	X
Sterling	X				X				X	X	X	

† Note Du Pont Code number must be used whenever ordering spiral-wound gaskets. Gasket diameters are in accordance with API 601, 3rd Edition, except that inside diameter of sizes 1/2", 3/4", and 1" shall be 3/4", 1", and 1 1/4" respectively.

Vendors are marked (X) under code numbers which they furnish to code specifications.

(1) See Table 4 for vendor identification list.

TABLE 4 - VENDOR IDENTIFICATION

Acadia Synthetic Products	Flexrock Company
Anchor Packing Company	Garlock, Inc
Argo Asbestos & Rubber Corporation	Goodall Rubber Company, Inc
Belmont Packing and Rubber Company	B. F. Goodrich Company
Boston Woven Hose & Rubber Division,	Goodyear Tire & Rubber Company
American Biltrite Rubber Company	Hercules Div, Chemprene, Inc
Briggs Rubber Products Company	Hewitt-Robins, Inc
Cadillac Plastic & Chemical Company	Johns-Manville
Chem Flow Corporation	Klinger Corporation of America
Chemical and Power Products, Inc	Lamons Metal Gasket Company
A. W. Chesterton Company	Melrath Supply & Gasket Company
Crane Packing Company	Nicolet Industries, Inc
Delaware Valley Packing & Rubber Co	Plastic and Rubber Company
Dixon Corporation	Quaker Rubber Corporation
John L. Dore Company	Raybestos-Manhattan, Inc
Durable Manufacturing Company	Republic Rubber Division, Lee Tire & Rubber Corp
Enflo Corporation	Resistoflex Corporation
Ethylene Chemical Corporation	Sepco
Ethylene Gulf Coast Corporation	Shamban Engineering Company
Fabrics & Finishes Dept,	Sterling Packing & Gasket Co
E. I. du Pont de Nemours & Company, Inc	U. S. Rubber Company
Flexitallic Gasket Company	Victor Gasket Div, Dana Corporation



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