

PACKING CODES

GASKETS AND PACKINGS
ENGINEERING STANDARD

ISSUED

MAY 1947

U 1 C

THIS PAGE REVISED
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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 Specification SU1C. Refer to Standard 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-32	Aluminum foil twisted and wrapped upon itself, castor oil, and graphite	Rotary shafts and reciprocating rods hardness Rc 50 min, end rings, Dowtherm, steam, air, oil, miscellaneous service	550	1000
R-33	Aluminum foil twisted over asbestos core, castor oil, and graphite	Accommodates greater shaft gyration than R-32, same uses as R-32	400	750
R-35	100 percent laminated graphite	High-speed rotating shafts, high-temperature valve stems and shafts, general chemical service except strong oxidizing conditions	350 ⁽¹⁾ 1000 ⁽²⁾	660 ⁽¹⁾ 1820 ⁽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 number.

Note: Table 1 cont'd on page 2.

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 0372278

PLAINTIFF'S
EXHIBIT
DUP-1121

DU 000417

TABLE 1 - ROD PACKING CODES (CONT'D)

Du Pont Code	Description	Use	Maximum Temperature	
			°C	°F
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
R-55	100 percent "Teflon" U-rings	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" U-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	Unstirred, 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" and 3/4" round	Column tray packing, see G2H. 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" and 3/4" round	Column tray packing, see G2H. 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 nonnitratable 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-51	Blue African asbestos braid over Blue African asbestos or plastic "Teflon" core, "Teflon" impregnated throughout	Nov 1966
R-52	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 1968
Wick and Rope Packing		
W-1A	First grade, 1/8-inch, white asbestos wick	Dec 1964
W-1B	First grade, 1/8-inch and over, white asbestos rope	Dec 1964
W-2A	Second grade, 1/8-inch, white asbestos wick	Dec 1964
W-2B	Second grade, 1/8-inch and over, white asbestos rope	Dec 1964
W-3A	1/8-inch, blue asbestos wick	Dec 1964
W-3B	1/8-inch and over, blue asbestos rope	Dec 1964
W-4A	1/8-inch, 98 percent white asbestos wick	Dec 1964



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