

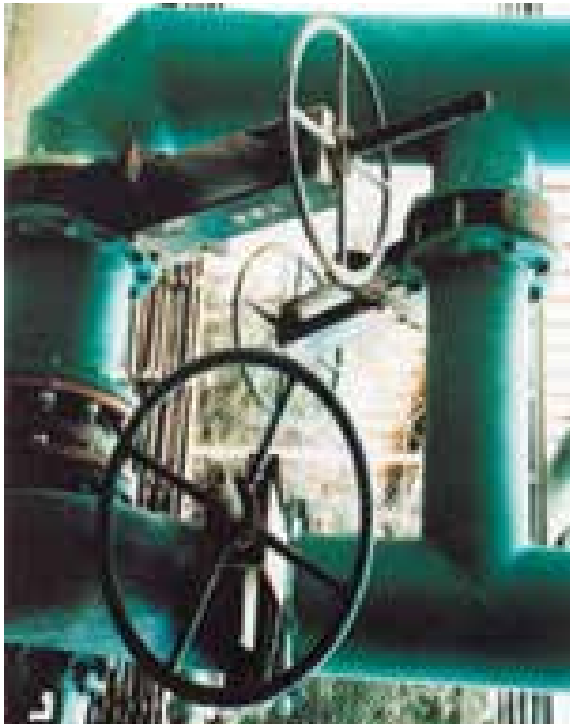
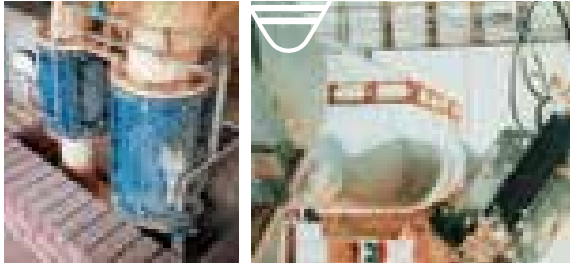
*Atval for - Quality,
Value and Service!*



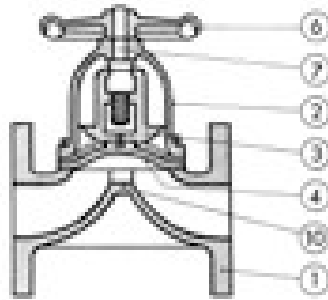
What are Pinch Valves ?

Valve Manufacturers Definition

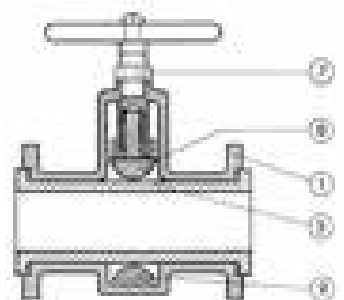
'A valve in which the flowing medium is isolated or controlled by the compression of a shoe on a flexible sleeve, usually made of rubber and which also isolates the operating mechanism from the line fluid'.



Diaphragm Valve



Pinch Valve



1: Body

2: Bonnet

3: Compressor

4: Diaphragm

5: Flexible Tube

6: Hand wheel

7: Spindle

8: Top Pinch Bar

9: Lower Pinch Bar

2: PINCH VALVES are particularly suitable for solids in bulk or in suspension in air or liquids. The fluid handled is isolated from all metal parts by the rubber or synthetic tube so that corrosives can be efficiently controlled. As shut off is effected by clamping the soft rubber tube, closure can be effected over small solids without either affecting the drop tight shut off or damaging the seating in any way; additionally the flow in the partially closed position is smooth. In the fully open or fully closed positions there is little or no wear. They are mainly used where abrasion, sewerage, solids handling and / or corrosion is a factor. They are the ideal slurry valve and have many advantages over other types of valves in these conditions.

3: PINCH VALVES ARE PARTICULARLY SUITABLE FOR HEAVY DUTIES SUCH AS

- Mines (slurries, corrosives and acids),
- Power stations (ash and dust),
- Cement works (powdered cement),
- Chemical works (corrosives and slurries),
- Mineral dressing plants (acids and slurries),
- Fertiliser manufacture (acids and slurries),
- General industry (corrosives, abrasives powders and delicate fluids).

In addition PINCH VALVES are now becoming recognised as a reliable rubber lined valve, where the lining is cheap and easy to replace.



Australian Operations

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MANUFACTURERS OF:

■ PINCH VALVES

■ KNIFE GATE VALVES

■ NON RETURN VALVES

■ EXPANSION JOINTS

■ RUBBER LINING

■ PINCH VALVE SLEEVES

■ SHORT HOSE

■ HOSE BENDS

■ GENERAL RUBBER PRODUCTS

■ VALVE REPAIR SERVICES

Distributors of: All types of Industrial Valves - Valve Actuators - High Pressure Hose - Rubber Sheets



'C' Series Pinch Valves



- **Fast and simple servicing**
- **Full bore, full flow conditions**
- **Sleeves specially manufactured for product**
- **Will not clog**
- **Full closure around relatively large partical size**
- **Reduced pipe line vibration and water hammer**
- **Inexpensive automatic control**
- **Changing the pressure or the closing medium can open, throttle or close the valve as required**
- **Applications enhanced using pressure or volume boosters**
- **Pressure drop across the valve should not exceed 25%**
- **For full closure, medium must be at least 2 Bar more than line pressure**
- **Bodies available in cast iron or alumimium**

Size Range: 25mm to 1000mm

Description

Atval's 'C' series pinch valves offer maximum economy and provide unequalled performance coupled with long-life. Like all quality products, the design is simple, yet versatile, enabling system control to be effected at minimum cost.

Sleeve

The easily replaceable moulded reinforced rubber sleeve has been specially developed and manufactured for this application and offers minimal pressure differential to affect fluid control and full valve closure.

The sleeves are self-supporting and are made to standard pipe line internal diameters and offer outstanding longevity even in highly abrasive situations.

Applications

Performing with unchallenged reliability, Atval's 'C' series pinch valves are used extensively for abrasive and slurry applications in many industries, including mining, power generation, sewage treatment, pulp and paper and chemical industries. The valves can handle waste and effluent, raw sewage, sludge, slime, grease, grit, cement, asbestos fibres, mine tailings, pneumatic conveying and many other aggressive applications.

Service Requirements

When ordering Atval pinch valves please refer to the table for the correct sleeve grade to suit the particular application. If in doubt please consult our sales office and provide the following key information:

1. Chemical analysis of product being handled
2. Concentration
3. Maximum operating temperature
4. Maximum working pressure



'C' Series Pinch Valves

The valves can be operated using either gas or liquids as the operating medium.

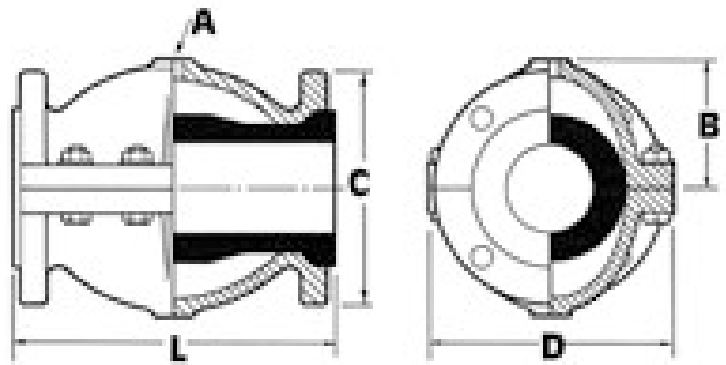
The operating pressure must exceed the line pressure by a minimum of 2 bar to effect closure.

The valves are not drop tight on clear fluids and gasses.

For optimum sleeve life, pipe line bolting flange torques must be strictly observed. As a guide the following bolting torques should not be exceeded.

| Bold/Nut Size (mm) | Socket Spanner Size (mm) | Maximum Torque (Newton-Meter) |
|---------------------|--------------------------|-------------------------------|
| M12 (1/2") | 19 | 10 |
| M16 (5/8") | 24 | 25 |
| M20 (3/4") | 30 | 70 |
| M24 (1") | 36 | 125 |
| M30 (1 1/4") | 46 | 250 |

For more detailed information please refer to the comprehensive operating and maintenance instructions available from our factory



| Valve Size (mm) | Max CWP (Bar) | A ₁ (BSP) | Dimensions (mm) | | | | Cast Iron Weight (Kgs) | Volume (Litres) |
|-----------------|---------------|----------------------|-----------------|-----|-----|------|------------------------|-----------------|
| | | | B | C | D | L | | |
| 25 | 10 | 1/4" | 60 | 115 | 115 | 134 | 6 | 0.1 |
| 40 | 10 | 1/4" | 75 | 150 | 150 | 166 | 7 | 0.2 |
| 50 | 10 | 1/4" | 82 | 165 | 165 | 198 | 10 | 0.3 |
| 80 | 10 | 1/4" | 103 | 200 | 200 | 262 | 19 | 1.2 |
| 100 | 10 | 1/4" | 117 | 220 | 220 | 312 | 22 | 2.5 |
| 150 | 10 | 1/2" | 164 | 285 | 285 | 415 | 43 | 7.4 |
| 200 | 10 | 1/2" | 202 | 340 | 340 | 530 | 74 | 17.0 |
| 250 | 10 | 1/2" | 230 | 405 | 405 | 645 | 110 | 32.0 |
| 300 | 10 | 1/2" | 300 | 460 | 460 | 760 | 140 | 55.0 |
| 350 | 10 | 1/2" | 325 | 530 | 530 | 990 | 210 | 87.0 |
| 400 | 10 | 1/2" | 450 | 590 | 600 | 1200 | 395 | 180 |
| 450 | 10 | 1/2" | 450 | 640 | 650 | 1350 | 475 | 240 |
| 500 | 10 | 1/2" | 500 | 700 | 700 | 1500 | 550 | 290 |

Sleeve Selection

This condensed classification indicates applications at a glance. For a more comprehensive appraisal please contact our sales department.

| Sleeve | | Application | Temp. °C | |
|----------|--------|---|----------|------|
| Grade | Colour | | Min. | Max. |
| A | Red | Slurry & Abrasives | -30 | +70 |
| B | Black | Slurry & Abrasives Ozone Resistant | -30 | +80 |
| D | Black | Oils, Solutions & Some Chemicals | -20 | +110 |
| E | Black | Acids & Chemicals | -30 | +130 |
| F | Black | Acids, Gases & Some Chemicals | -30 | +120 |
| T | Black | Oils, Abrasives, moderate Chemicals & Acids | -30 | +90 |



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- SHORT HOSE
- HOSE BENDS
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- VALVE REPAIR SERVICES



'K' and 'KE' Series Pinch Valves

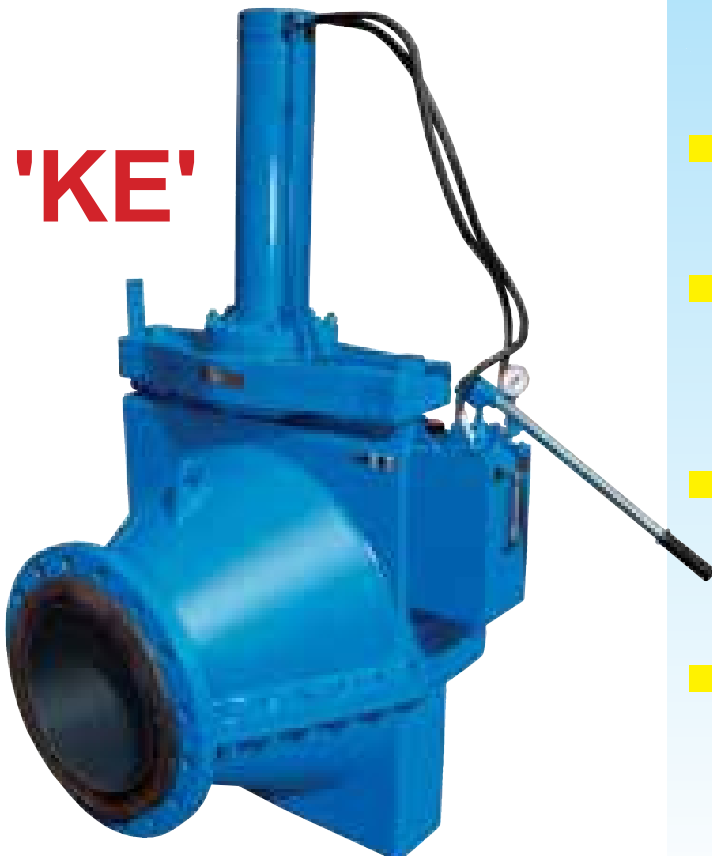
Size Range: 25mm to 1000mm

'K'



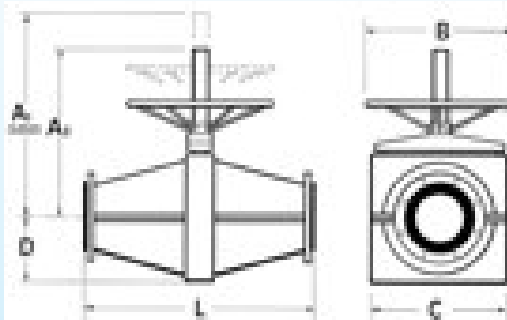
- 25 years Proven Service.
- Superior Quality.
- Offers Easy Maintenance.
- Cost Effective.
- Full Bore, Full Flow feature.
- Reduces Water Hammer.
- Short Pattern Design interchangeable with Diaphragm Valves.
- Internal slots in sleeve ensure Bi-Directional Drop Tight Closure, over entire pressure range.
- Working pressure in excess of 8000kPa are available.
- Full Range of Sleeves offers Exceptionally Wide Application Versatility.
- Designed to accept All Forms of Actuators, including Pneumatic, Electric and Hydraulic.
- All Sleeves Independently Tested prior to dispatch and Test Certificates supplied as standard.

'KE'





'K' and 'KE' Series Pinch Valves



Other sizes and pressure ratings are available and can be made to special order!

Description

Atval's 'K' and 'KE' series pinch valves offer maximum economy and provide unequalled performance coupled with long-life and cost effectiveness. Like all quality products, the design is simple yet versatile, enabling powered, automated and remote control actuators to be fitted without costly modifications.

Sleeve

The easily replaced moulded reinforced Elastomer sleeve ensures a smooth flow and outstanding longevity - even in highly abrasive situations. The sleeve flange is metal reinforced to ensure a rigid and leak proof connection to the piping flanges. The sleeves are self supporting and are made to standard pipe line internal diameters and are available as standard for CWP ratings of 1000, 1600, 2500 and 4000kPa from our local manufacturing plant.

Applications

Performing with unchallenged reliability, 'K' and 'KE' pinch valves are used extensively for abrasive and slurry applications in many industries, including mining, power generation, sewage treatment, pulp and paper and chemical industries. The valves can handle waste and effluent, raw sewage, sludge, slime, grease, grit, cement, asbestos fibres, mine tailings, pneumatic conveying and many other aggressive applications.

Sleeve Selection

This list is not exhaustive and the different grades indicated may be suitable for other applications. Should there be any uncertainty regarding grade selection and to avoid any subsequent complication, contact our sales office indicating:

- Chemical analysis of product handled.
- Maximum operating temperature.
- Maximum working pressure.
- All other requirements or pertinent data.

| Valve Size (mm) | Dimensions (mm) | | | | | 'L' Dimensions | |
|-----------------|-----------------|----------------|------|------|-----|----------------|--------------|
| | A ₁ | A ₂ | B | C | D | Short Pattern | Long Pattern |
| 25 | 195 | 180 | 100 | 120 | 70 | 134 | - |
| 40 | 270 | 250 | 150 | 200 | 80 | 166 | - |
| 50 | 300 | 275 | 200 | 220 | 95 | 196 | - |
| 80 | 340 | 300 | 250 | 245 | 100 | 262 | - |
| 100 | 400 | 350 | 350 | 310 | 130 | 312 | - |
| 150 | 595 | 520 | 500 | 410 | 185 | 415 | - |
| 200 | 780 | 680 | 650 | 550 | 300 | 530 | 800 |
| 250 | 905 | 780 | 800 | 640 | 320 | 645 | 1000 |
| 300 | 1050 | 900 | 800 | 730 | 335 | 760 | 1200 |
| 350 | 1175 | 1000 | 1000 | 850 | 390 | 990 | 1400 |
| 400 | 1310 | 1110 | 1000 | 900 | 400 | 1200 | 1600 |
| 450 | 1345 | 1120 | 1500 | 1060 | 530 | 1350 | 1800 |
| 500 | 1530 | 1280 | 1600 | 1200 | 600 | 1500 | 2000 |

Sleeve Selection

This condensed classification indicates applications at a glance. For a more comprehensive appraisal please contact our sales department.

| Sleeve | | Application | Temp. °C | |
|----------|--------|---|----------|------|
| Grade | Colour | | Min. | Max. |
| A | Red | Slurry & Abrasives | -30 | +70 |
| B | Black | Slurry & Abrasives Ozone Resistant | -30 | +80 |
| D | Black | Oils, Solutions & Some Chemicals | -20 | +110 |
| E | Black | Acids & Chemicals | -30 | +130 |
| F | Black | Acids, Gases & Some Chemicals | -30 | +120 |
| T | Black | Oils, Abrasives, moderate Chemicals & Acids | -30 | +90 |



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'TRUFLO'
SINGLE ANVIL PINCH VALVE

ATVAL'S Hi-Tech Alternative to the Matronly Diaphragm Valve!



■ Straight line flow, no cavities.

■ Drop tight Bi-Directional shut off.

■ Easy to use, easy to maintain, fitter friendly.

■ All types of actuators can be fitted.

■ Self cleaning flexing action of sleeve eliminates in line scaling and line blockage.

■ Field replaceable sleeve extends in line service and lowers maintenance costs.

■ Sleeves available in a wide range of polymers and trims to meet exact service and flow specifications.

■ All mechanical parts completely isolated from pipe line medium.

■ Sizes 25mm to 300mm. Normal CWP 1000kPa. For higher pressures consult our factory.

'TRUFLO' SINGLE ANVIL PINCH VALVE

STAINLESS STEEL SPINDLE
For Reliability and Long Life

BRONZE BUSH
For Reliability and Long Life

SLEEVE LOCK

**FIELD
REPLACEABLE
SLEEVE**

**CLOSING PROFILE
FOR HIGHER PRESSURES**

**AUTOMATIC BUILT IN LUBRICATOR
(OPTIONAL EXTRA)**

**FLANGED TO
ACCOMMODATE
ALL FLANGE
DRILLING**

**PRECISION
LOCATING PIN**

Patent Applied For.

| Valve Size | 25 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Face to Face | 134 | 166 | 198 | 225 | 263 | 312 | 365 | 415 | 535 | 644 | 760 |
| Centre to Top (open) | 100 | 140 | 150 | 180 | 215 | 265 | 300 | 350 | 400 | 550 | 630 |
| Hand wheel | 110 | 110 | 150 | 150 | 200 | 250 | 250 | 300 | 350 | 500 | 600 |
| Weight | 5 | 7 | 10 | 13 | 18 | 26 | 40 | 55 | 100 | 170 | 220 |

| Body | Sleeve Rubbers | Spindle |
|------------------|----------------|---------------------------|
| Cast Iron | Gum | Stainless 304 |
| Aluminium | Natural | Stainless 316 |
| Coated (Specify) | Synthetic | To Customer Specification |

Other valve sizes available - Please consult our factory.



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Utility 'Control' Pinch Valves

Size Range: 25mm to 300mm

- 50 years of proven service.
- Drop tight bi-directional shut off.
- Easy to use, easy to maintain, fitter friendly.
- Modular structure allows independent choice of actuator, body and sleeve type.
- Excellent control and throttling characteristics.
- All types of actuators can be fitted.
- High wear resistant, field replaceable sleeves, extend inline service and lowers maintenance costs.
- Self cleaning, flexing action of sleeve eliminates scaling and line blockage.
- Sleeves available in full bore, reduced port and cone design in a wide range of polymers to meet exact service and flow specifications.

**Possibly the best slurry
control valve available on
the market at this time!**

In producing the ATVAL 'Utility Pinch Valve, we offer a valve which is reliable, economical and specially pre-pinch for accurate repeatable linear flow control. The stream lined, pre-pinch flow design only marginally restricts flow when the valve is in the fully open position and has approximately 90% of the flow of full bore valves. The valve is specially designed for flow control, which begins immediately the valve starts to close, providing a near linear flow characteristic. Reduced port, or cone sleeves can be specified to further enhance control performance and match the exact C_v values desired.

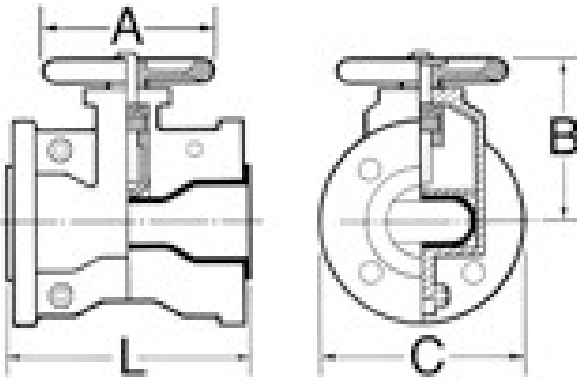
Atval offers a free valve sizing service to its customers, which accurately selects valve size and sleeve type for optimum performance. If you require this service, please complete the valve inquiry details available on our website.

Today these valves are used in almost every industry controlling the most delicate and dangerous fluids, as well as simple ones. It is a proven departure in valve design, incorporating the use of an internal rubber sleeve, which is unique in its application.

When ordering ATVAL 'Utility' Control valves please refer to the tables shown on reverse page for C_v (Flow Coefficient), Flow Control Curve and sleeve selection. These tables indicate applications at a glance. For more comprehensive details, please consult our sales office.



'Utility' Control Pinch Valves

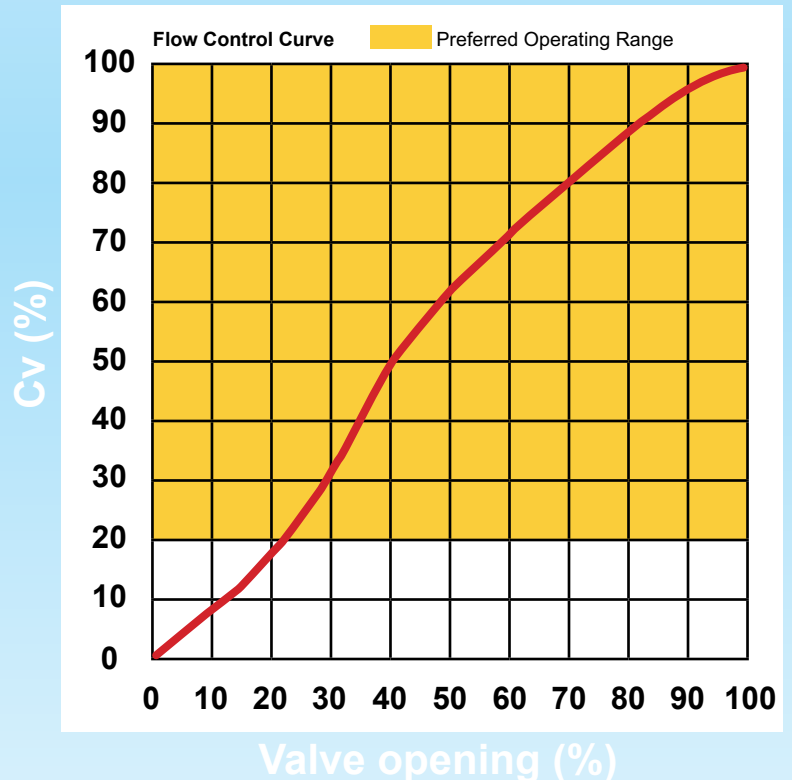


| Valve Size (mm) | Max CWP (Bar) | Dimensions (mm) | | | | Weight (Kgs) | Cv |
|-----------------|---------------|-----------------|-----|-----|-----|--------------|------|
| | | A | B | C | L | | |
| 25 | 16 | 80 | 80 | 115 | 134 | 4.0 | 67 |
| 40 | 16 | 105 | 125 | 150 | 166 | 7.0 | 170 |
| 50 | 16 | 140 | 130 | 165 | 198 | 10.5 | 280 |
| 80 | 16 | 190 | 160 | 200 | 263 | 16.0 | 710 |
| 100 | 10 | 230 | 220 | 220 | 312 | 28.0 | 1110 |
| 150 | 10 | 350 | 280 | 280 | 415 | 55.0 | 2495 |
| 200 | 10 | 460 | 340 | 340 | 535 | 113.0 | 4425 |
| 250 | 10 | 650 | 440 | 405 | 644 | 180.0 | 6910 |
| 300 | 10 | 730 | 490 | 460 | 760 | 230.0 | 9965 |

Sleeve Selection

This condensed classification indicates applications at a glance. For a more comprehensive appraisal please contact our sales department.

| Sleeve | | Application | Temp. °C | |
|----------|--------|---|----------|------|
| Grade | Colour | | Min. | Max. |
| A | Red | Slurry & Abrasives | -30 | +70 |
| B | Black | Slurry & Abrasives Ozone Resistant | -30 | +80 |
| D | Black | Oils, Solutions & Some Chemicals | -20 | +110 |
| E | Black | Acids & Chemicals | -30 | +130 |
| F | Black | Acids, Gases & Some Chemicals | -30 | +120 |
| T | Black | Oils, Abrasives, moderate Chemicals & Acids | -30 | +90 |



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