Capping Pad System

ASTM C 1231 **AASHTO T 22**

Capping Pads and Steel Receivers of various sizes and shapes.

The Capping Pad System is an alternative to the traditional casting-type capping method. These high-strength, abrasive-resistant neoprene discs and steel receivers are placed on each end of the concrete test cylinder. The Capping Pad System is easy to use, allows immediate testing and the components are reusable (100 breaks approx.). Available in three grades of hardness (soft, medium and hard).

Capping Pad System			
Capping Pads			
Size (nominal) and shape	Soft (50 durometer)	Medium (60 durometer)	Hard (70 durometer)
6 in (round)			
1 pair	C-293	C-294	C-295
12 pairs/carton	C-29312	C-29412	C-29512
4 in (round)	C-28704	C-28705	C-28706
3 in (round)	C-28701	C-28702	C-28703
3 in (square)	C-28710	C-28711	C-28712
2 in (round)	C-28707	C-28708	C-28709
2 in (square)	—	—	C-23704*
Steel Receivers			
C-288	6-in Steel Receivers, round, set of two		
C-28804	4-in Steel Receivers, round, set of two		
C-28803	3-in Steel Receivers, round, set of two		
C-28805	3-in Steel Receivers, square, set of two		
C-28802	2-in Steel Receivers, round, set of two		
C-23703	2-in Steel Receivers, square, set of two		
Related Item			
C-260	Planeness Gauge		

*70 and 80 durometer, set of 4. C-23704 square capping pads are available in two (2) strengths. Red pads can withstand strengths up to 4000 psi and amber pads are capable of withstanding strengths in excess of 4000 psi.

Note: Soft (50 durometer) pads have been found appropriate for cylinder strengths more than 1500 psi (10.3 MPa) and up to approximately 6000 psi (41.4 MPa). Medium (60 durometer) pads have been found appropriate for cylinder strengths between 2500 to 7000 psi (17.2 to 4803 MPa). Hard (70 durometer) is not recommended for strengths less than 4000 psi (28 MPa). Capping pads may not be effective for very high strength concrete, i.e. in excess of 9000 psi (63 MPa).

Vertical Cylinder Capping Fixture

ASTM* C 617 * See Standards Buyer's Guide at www.DGSI.info/3000.

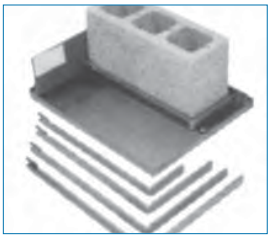
These fixtures are used to simplify the process of capping concrete test cylinders. Made from heavy gauge steel, they provide a stable base for the capping process. The upright supports are widely spaced to minimize injury and allow accurate alignment of the cylinder on the capping fixture. The fixture can easily be disassembled for base plate resurfacing, if needed, to extend the life of the device.

C-275

Vertical Cylinder Capping Fixtures		
C-275	Vertical Cylinder Capping Fixture, 6 x 12 in (15.2 x 30.5 cm)	27 lb
C-27510	Vertical Cylinder Capping Fixture, 4 x 8 in (10.2 x 20.3 cm)	27 lb
C-27520	Vertical Cylinder Capping Fixture, 3 x 6 in (7.6 x 15.2 cm)	27 lb
C-27530	Vertical Cylinder Capping Fixture, 2 x 4 in (5.1 x 10.2 cm)	

Block Capping Fixture

Block capping fixture caps 6-in (15 cm), 8-in (20 cm) and 12-in (30 cm) masonry blocks in preparation for compression testing by using interchangeable retainers. The base is precision surface ground to 0.003 inch in all directions.



C-265

C-265	Block Capping Fixture	130 lb

Planeness Gauge Set

This set is used to determine the planeness (flatness) of platens and capping fixtures. The set consists of 6-in long precision ground parallel bar, feeler gauge set, 0.001-in feeler gauge and plastic case.

C-260

C-260	Planeness Gauge Set, 6 in	4 lb
Replacement Parts		
C-26001	Precision-ground parallel bar, 6 in long	
C-26002	Feeler gauge set, 0.003 to 0.018 in (marked w/ metric equivalent)	
C-26003	Feeler gauge set, 0.001-in thick, 12 in (L) x 1/2 in (W)	
C-26004	Case, plastic	
C-26005	Precision-ground parallel bar, 4 in long	

Warming Pot


GO-230

Designed for melting and maintaining the heat level of paraffin sealing waxes and capping compounds. It has an adjustable thermostatic control operable up to 550 °F (228 °C).
The inner heating chamber is made of cast aluminum, encased in stainless steel and surrounded by 3 inches of fiberglass insulation. The aluminum top cover is fitted with a wooden handle. The pot has a pilot light and a 6 ft (2.4 m) 3-conductor grounded power cord.

Available in 5 sizes with heating elements for 110 or 220 V, 60 Hz, single phase, 1000 or 1320 W, 8.3 A.

Warming Pots		
GO-230	Warming Pot. 4 qt, 110 V	16 lb
GO-23010	Warming Pot. 4 qt, 220 V	16 lb
GO-231	Warming Pot. 8 qt, 110 V	27 lb
GO-23110	Warming Pot. 8 qt, 220 V	27 lb
GO-232	Warming Pot. 12 qt, 110 V	29 lb
GO-23210	Warming Pot. 12 qt, 220 V	29 lb
GO-23220	Warming Pot. 20 qt, 110 V	43 lb
GO-23225	Warming Pot. 20 qt, 220 V	43 lb
GO-23228	Warming Pot. 28 qt, 120 V	52 lb
GO-23229	Warming Pot. 28 qt, 220 V	52 lb
Related Items		
G-29105	Capping Ladle, stainless steel, 8 oz (0.24 l) capacity	

Capping Compound

ASTM* C 617 *** See Standards Buyer's Guide at www.DGSI.info/3000.**

Melting point is 240 °F (115 °C), best flow at 260 - 280 °F (126-137 °C).

Made in two formulations with two-hour setting time compressive strengths of:

- 5500 psi (38 MPa) Capping Compound Powder or Ingots
- 8000 psi (55 MPa) High-Strength Compound Chips
- 4000 psi (28 MPa) Gypsum Powder

Capping Compounds

C-281	Capping Compound (ingot), 50 lb (23 kg) box	
C-282	High-Strength Capping Compound (chips), 50 lb (23 kg) bag	
C-283	Hydra Stone (powder), 50 lb (23 kg) bag	


C-270

Vertical Capping Set

ASTM C 31, C 192, C 617
AASHTO T 23, T 126

Cylinder test specimens must have flat and level end surfaces perpendicular to the cylinder body to assure compression test accuracy. The cylinder ends may be either ground or capped to achieve conformity with ASTM C 617.

The Vertical Capping Set provides all the needed items for capping 6 x 12 in (15.2 x 30.5 cm) concrete cylinders.

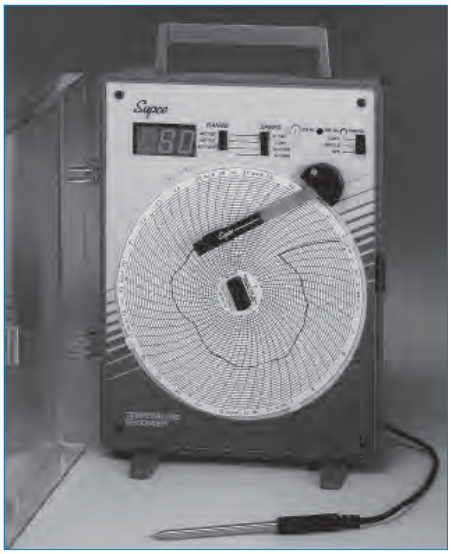
C-270	Vertical Capping Set, 110 V, 60 Hz	45 lb
Set Includes		
C-275	6 x 12 in Vertical Capping Fixture	
GO-230	4 qt Warming Pot, 110 V, 60 Hz	
G-29105	Capping Ladle, stainless steel, 8 oz	
C-246	Carrier for 6 x 12 in cylinders	
G-153	Dual Scale Thermometer	
Related Items		
C-280	Capping Compund (powder), 50 lb (23 kg) bucket	
C-281	Capping Compound (ingot), 50 lb (23 kg) box	
C-282	Hi-Strength Capping Compound (chips), 50 lb (23 kg) bag	
G-530	Hi-Temp Cotton Gloves	

Caution!

Personnel capping cylinders should wear safety glasses, protective clothing and gloves.
Melting pots with capping compound should be used under a hood exhausted to outdoors and the capping area well ventilated. The Flash Point of sulphur-based compound is about 400 °F (204 °C) and the mixture can ignite if overheated.

MSDS sheets available on www.durhamgeo.com

Digital Temperature Chart Recorder


G-184A

The G-184A Digital Temperature Recorder with remote sensor accurately measures and records temperature in air, gas, liquids, powders, solids and semi-solids.

Two selector switches on the face panel allow for recording of three different temperature ranges at four different recording speeds.

- Temperature ranges: -40 ° to 30 °F, -20 ° to 50 °F, 50 ° to 120 °F.
- Temperature accuracy: ± 2 °F.
- Chart speeds: 6 hr, 24 hr, 7 days, 31 days.
- Chart speed accuracy: better than 1%.
- Chart diameter: 6 in.
- Relative Humidity: 96% Max.
- Remote readings from up to 100 ft (with optional sensor wire). Remote sensor accurately measures and records temperatures in air, gas, liquids, powders, solids and semisolids.
- Programmable speed and temperature ranges.

The temperature probe has a 15-ft long cable with a 4-in long stainless steel submersible tip. 115 V, 50/60 Hz. Battery back-up. Optional adapter for 12 V vehicle operation.

Furnished complete with 2 cartridge pens and sixty 6"-diameter assorted charts.

G-184A	Digital Temperature Recorder, Fahrenheit Model	5 lb

Digital Max/Min Thermometer

With dual sensors, the G-180E Digital Max/Min Temperature Recording Thermometer is perfect for monitoring job site curing tanks with one instrument!


G-18050

Seven day high/low memory for each sensor. Selectable °F or °C degree scale.

Range:
40 °C to +120 °F; -40 °C to 50 °F.

Accuracy:
± 1.8 °F; ± 1 °C.

Waterproof probes on 10 ft cable.

G-18050	Digital Min/Max Temperature Recording Thermometer	1 lb

Temperature / Humidity Recorder

- Chart dia.: 6 in.
- Front panel touch pad
- Real time data view
- Battery backup
- Field replaceable probes
- Field calibration of probes
- Independent channel alarms
- Temperature and humidity probe


G-183A

Range and Accuracy:

Temp: -40 °F to 130 °F ±2 °F (-40 °C to 55 °C ±1 °C).

RH: 0-95% (non-condensing) at 32 °F to 130 °F ±2% (0 °C to 55 °C) ambient.

G-183A	Temp/Humidity 6-in Chart Recorder	5 lb

Sling Psychrometer

The Sling Psychrometer is used to determine relative humidity, dew point and vapor pressure. G-140 has tubes recessed in gray metal back, folding swivel handle and boxed with spare wicks and instructions.


G-142

G-140

G-142 Pocket Sling Psychrometer has self-contained sling-pocket case and slide rule. Range: 20 ° to 120 °F. High-impact plastic.

G-140	Sling Psychrometer	1.0 lb
G-142	Pocket Sling Psychrometer	1.0 lb

Specifications for Sling Psychrometers	
Operation:	Whirl for 15 seconds until matching readings result
Thermometers:	Two mercury-filled, wet and dry bulb types
Construction:	Metal back holds thermometers and attached folding swivel handle

See page 117 for laboratory thermometers

Armored Case Concrete Thermometer

ASTM E 1

The Armored Case Concrete Thermometer may be used for temperature measurement of aggregates and concrete. 6 in (15.2 cm) long.

G-15910

G-15910	Armored Case Concrete Thermometer, 0° to 130°F, 2° divisions	1.0 lb
G-15915	Refill for G-15910	

Humidifier

C-250

Designed to provide humidity levels up to 95% for a concrete cylinder curing room. An adjustable brass float controls water usage at variable pressures up to 75 psi (517 kPa). The humidifier is provided with ⅛-in NPT water inlet and ¼ -in FPT water overflow fittings and a sealed motor section. 14½ -in diameter x 10-in high (37 x 27 cm). Shown with one-way directional flow. Available with half and full-blow.

C-250	Humidifier, 115 V, 60 Hz, 3250 RPM, .76 A. Produces 5 lb. vapor per hour. Suitable for 2000 ft³ room.	40 lb
C-25050	Humidifier, 115 V, 60 Hz, 3250 RPM, 1.15 A. Produces 10 lb. vapor per hour. Suitable for 4000 ft³ room.	45 lb
Accessory		
C-25010	Humidistat Controller, 115 V, 60 Hz	3 lb

Tank Heater and Circulating Pump

Designed for curing tanks, the heater (C-255) will provide temperature controlled heated water. The thermostat is adjustable between 35°F and 95°F. The element is protected by a thermal cut-out. Internal wiring is within a steel cover with a conduit fitting for the input power, 115 V (ac), 850 W, and a mounting bracket. The heating element is 19 in (48 cm) long.

C-255

The Circulation Pump is compact enough to fit in most curing tanks.
Size: 4 in H x 3¾" W x 4½" L.
Rated flow: 170 gal/hour.
1/4 in outlet diameter.
115 V, 60 Hz, 1 Ph, 1.1 A.
Cast aluminum construction with Nylon plastic filter guard.

C-256

C-255	Electric Tank Heater, 115 V	6 lb
C-256	Submersible Circulating Pump, 115 V, 100-170 gph	10 lb
C-257	Submersible Circulating Pump, 115 V, 70-300 gph	12 lb

Concrete Cylinder Curing Box

ASTM C 192, C 511, C 31
AASHTO M 201, T 126, T 23

C-252

Field-portable curing box with built-in temperature controlled system. C-251 features a heat pump that both heats and cools. C-252 contains a heater only. Made of durable plastic with a steel bottom rack. Designed and factory tested to accommodate ASTM specified curing temperature requirements (73.4°F ± 3°F for 48 hours). It will hold up to 22 standard 6x12-in cylinder molds. Meets or exceeds DOT specs. Outside dim. (LxWxH): 75 x 25 x 21 in (190 x 63 x 53 cm). Inside dimensions (LxWxH): 54 x 18 x 17 in (137 x 46 x 43 cm).

C-251	Deluxe Concrete Curing Box, 110 V Heating and Cooling	162 lb
C-252	Economy Cylinder Curing Box, 110 V, 15 A Heating Only	74 lb
C-25210	Economy Cylinder Curing Box, 220 V, 7.5 A Heating Only	74 lb

Pi Tape

C-196

The Pi Tape directly measures the diameter of concrete cylinders from 2 to 12 inch diameter to an accuracy of ±0.001 inch. It gives the average diameter in one reading and eliminates the averaging of several when using a micrometer. Manufactured from type 1095 spring steel.

The Pocket Pi Tape is similar but measures from 1- to 23-in diameter with 0.01 accuracy. It's diameter is 1¾ in. and features a 1/4 x 72-in retractable steel tape. It does not have the averaging feature.

C-196	Pi Tape in case	1 lb
C-19610	Pocket Pi Tape	

Field Curing Box and Transportation Rack

ASTM C 31
AASHTO T 23

The C-20710 Portable Field Curing Box is a zipper-sealed polymer and vinyl chest with 1/2 inch of insulating foam and a rigid floor plate. It is designed to accommodate the optional C-208 Transportation Rack, a lightweight, rugged, plastic device designed to hold eight 6 x 12 inch concrete cylinders in an upright position.
A center square opening accommodates a heater (not supplied).

C-207

C-207	Field Curing Box and Transportation Rack
C-20710	Portable Field Curing Box
C-208	Transportation Rack, 6 -to- 8-in cylinder capacity
C-20804	Transportation Rack, 4 -to- 16-in cylinder capacity

Curing Tank for Cylinders or Beams

ASTM C 192
AASHTO T 127

For curing cylinder or beam specimens that require complete immersion. Two materials are offered: galvanized steel and formed plastic. The corrugated steel tanks have a single seam secured with elastic packing and rivets, top edge is rolled around steel pipe.

Steel and Plastic Curing Tanks		
C-253	Metal Curing Tank, 137 gal (519 l) capacity. Size: 24 x 24 x 60 in (0.6 x 0.6 x 1.5 m)	55 lb
C-254	Metal Curing Tank, 330 gal (1136 l) capacity. Size: 36 x 96 x 24 in (0.9 x 2.4 x 0.6 m)	120 lb
C-25420	HD Polyethylene Curing Tank, 150 gal (568 l). Size: 37 x 56 x 25 in (0.9 x 1.4 x 0.6 m)	50 lb

Canvas Cylinder Wrap

The Canvas Cylinder Wrap is used to contain fragments when the cylinder is compression tested. It is reusable and is provided with Velcro tabs for easy installation and removal.

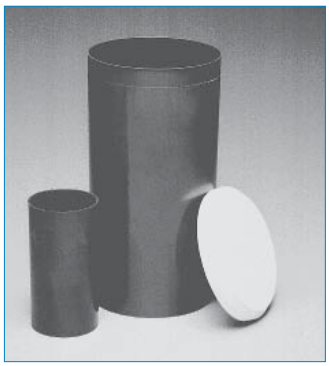
C-226	Canvas Cylinder Wrap, 6 x 12 in	1 lb
C-227	Canvas Cylinder Wrap, 4 x 8 in	1 lb

Single-Use Plastic Cylinder Molds

ASTM* C 39, C 192, C 470

* See Standards Buyer's Guide at www.DGSI.info/3000.

The Cylinder Molds are dimensionally accurate and are used to make test specimens of wet concrete. Made from a non-absorbing and non-adhering plastic, designed to withstand rough handling. They are economical to use as they require no preparation and can be easily stripped from the specimen using the Stripping Tool. Max temp of product placed in mold is 212° F.



Plastic Cylinder Molds

Four mold diameters available:
- 6 in. (15.2 cm)
- 4 in. (10.2 cm)
- 3 in. (7.6 cm)
- 2 in. (5 cm)

C-211

Domed Plastic Lids for the 6-in size do not touch the specimen and seal the end of the mold to prevent specimen moisture loss.

Single-Use Plastic Cylinder Molds, Plastic Lids, Stripping Tool		
C-209	Lipped Single-Use Plastic Cylinder Mold, 6 x 12 in (15.2 x 30.5 cm), 20/case	17 lb
C-210	Single-Use Plastic Cylinder Mold, 6 x 12 in (15.2 x 30.5 cm), 20/case	17 lb
C-220	Single-Use Plastic Cylinder Mold, 4 x 8 in (10.2 x 20.3 cm), 36/case	15 lb
C-215	Single-Use Plastic Cylinder Mold, 3 x 6 in (7.6 x 15.2 cm), 80/case	17 lb
C-218	Single-Use Plastic Cylinder Mold, 2 x 4 in (5.1 x 10.2 cm), 84/case	18 lb
C-21510	Flat Plastic lid for 3-in (7.6 cm) Plastic Mold	1 lb
C-21810	Flat Plastic lid for 2-in (5 cm) Plastic Mold	1 lb
C-20910	Lipped Plastic lid for 6-in (15.2 cm) Plastic Mold, C-209	1 lb
C-212	Domed Plastic lid for 6-in (15.2 cm) Plastic Mold, C-210	1 lb
C-221	Domed Plastic lid for 4-in (10.2 cm) Plastic Mold, C-220	1 lb
C-211	Mold Stripping Tool	2 lb
Related Items		
C-352	Tamping Rod, graduated, rounded on one end	
C-21010	Reusable Plastic Cylinder Mold, 6 x 12 in (15.2 x 30.5 cm)	
G-191	Micrometer Caliper	
C-246	Cylinder Carrier	
C-246L	Cylinder Carrier for Lipped Molds	

For more information visit **www.DGSI.info/3096**

Steel Cylinder Mold

ASTM* C 39 * See Standards Buyer's Guide at www.DGSI.info/3000.

The reusable Steel Cylinder Mold is used for preparing concrete test specimens for compression testing. It comprises the mold with a clamping system to keep it tightly closed and a base plate that is clamped to the cylinder when being used. Both items are plated to resist corrosion. Size: 6 x 12 in (15.2 x 30.5 cm).


C-22505


C-225

C-225	Steel Cylinder Mold, 6 x 12 (15 x 30.5 cm), w/o handle	27 lb
C-22505	Steel Cylinder Mold, 6 x 12 (15 x 30.5 cm), with handle	28 lb
C-22550	Steel Cylinder Mold, 4 x 8, (10 x 20 cm) without handle	10 lb
Related items		
C-22510	Base Plate (replacement)	
C-35710	Straight Edge	
C-352	Tamping Rod, graduated	

Concrete Vibrator

ASTM C 31, C 138, C 132
AASHTO T-23, T-121, T-126

Consolidation of fresh, molded concrete specimens is easily accomplished in the laboratory or at the work site with this electric driven (UL Listed) unit.


C-345

- Power: 1¼ hp (0.9 kW)
- Head Frequency: 10,000 vibrations/min in 1-in slump
- Amplitude: 0.092 in (2.3 mm) in air
- Head size: 3/4 in x 12 in (19 x 30.5 cm)
- Shaft Length: 36 in (91.4 cm)
- Compaction Capacity: 2 to 4¾ yd³/hr (1.5 to 3.6 m³/hr)

C-345	Concrete Vibrator, 115 V, 60 Hz	21 lb

Pocket Tachometer

Check vibration, in CPM and speed, in RPM as well as find "dead spots" or unwanted vibrations with the Pocket Tachometer. Used to determine the effectiveness of vibrators setting concrete in forms. It comprises an aluminum body, steel wire reed and tuning slide. The speed is read directly off the etched scale in a range of 2,000 to 21,000 CPM or RPM.

C-540	Pocket Tachometer, 2000 to 21,000 cpm or rpm	1 lb

Cylinder Carriers

The Cylinder Carrier is used to move 6 x 12-in concrete cylinders in the field or in the lab. Made from formed steel.


C-246

The C-246 Gripper Carrier secures the cylinder by hand-grip, pincer action, rubber-lined jaws. The C-246L carrier is designed to be used with plastic cylinder molds having an upper reinforcing lip. It is sold individually.

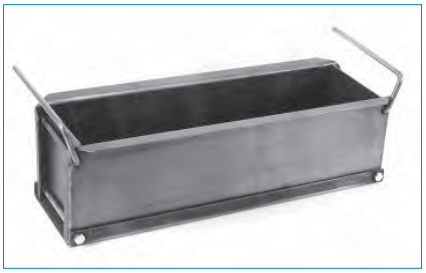

C-246L

C-246	Cylinder Gripper Carrier (for 6-in cylinders)	4 lb
C-24650	Cylinder Gripper Carrier (for 4-in cylinders)	3 lb
C-246L	Lipped Mold Carrier	1 lb
Replacement Part		
C-24601	Replacement Rubber Grips for C-246	

Steel Beam Mold

ASTM C 31

Molds are formed from heavy gauge steel plate to maintain dimensional shape and can be easily disassembled for cleaning. Fitted handles assist with easy movement.


C-230

Steel Beam Mold		
C-230	Steel Beam Mold, 6 x 6 x 20 in (15 x 15 x 51 cm)	22 lb
C-23560	Steel Beam Mold, 6 x 6 x 6 in (15 x 15 x 15 cm)	20 lb

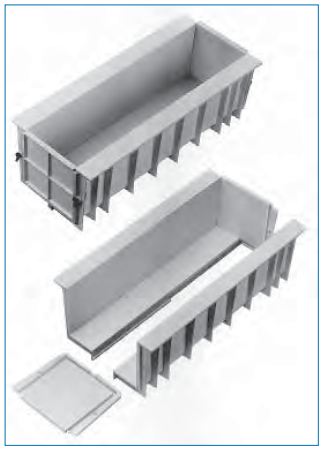
Plastic Beam Mold

ASTM C 31, C 78, C 192, C 293

Lightweight copolymer plastic beam mold for forming 6 x 6 x 21 in (152 x 152 x 533 mm) beams. Ribbed interlocking parts assemble easily with thumb screws while providing a stable, dimensionally correct mold.

Inside surfaces are smooth and water tight to eliminate need to apply sealant to joints.

Note: The number of uses depends upon the care exercised. Abusive use, dropping, striking the mold, etc. can cause damage or mold distortion.


C-234

C-234	Plastic Beam Mold, 6 x 6 x 21 in	8 lb