

# IMMERSION VISCOSITY CUPS COMPATIBLE WITH DIN 53211 VF2071, VF2072, VF2073, VF2074, VF2075, VF2077, VF2213, VF2215, VF2216, VF2217

# **PRODUCT DESCRIPTION**

The TQC Viscosity Cup DIN 53211 Immersion is a range of titanium anodized aluminum or stainless steel viscosity cups with fixed stainless steel (SS303) nozzle (inner cavity) and handle. Inner dimensions similar to DIN 53211. Ideal for measuring coatings and other fluids during application or production. The dimensions of this flow cup are according to DIN 53211, fitted with a handle, and also referred to as a FRIKMAR cup.

The process of flow through an orifice can often be used as a relative measurement and classification of viscosity.

This measured kinematic viscosity is generally expressed in seconds of flow time which can be converted into Centistokes using a viscosity disc calculator. Dip cups can be used to provide a quick viscosity measurement on the shop floor or on site.

### **BUSINESS**

Laboratory, manufacture

#### **STANDARDS**

Compatible with/ similar to DIN53211

#### FEATURES

- Each cup has a long loop handle to allow the cup to be dipped by hand into a liquid container, which makes it easy to quickly check and adjust the viscosity of many different type of liquids.
- The design of the cup and orifice eliminate hard to clean recesses.
  TQC viscosity cups are made under the continuing quality control procedures.
- Each cup is provided with an engraved unique serial number.
- Each viscosity cup comes with a hard plastic storage case, with protective soft material on the inside.

#### **ORDERING INFORMATION**

VF2071	TQC Viscosity Cup Immersion (Similar t Type: made of titanium anodised alum		
VF2072	TQC Viscosity Cup Immersion (Similar t Type: made of titanium anodised alum	-	
VF2073	TQC Viscosity Cup DIN 53211 Immersion Type: made of titanium anodised alum Optional: possible to certify by calibrat	inum, with fixed nozzle orifice Ø 4 mm	
TQC B.V. Molenbaan	2908 LL Capelle aan den IJssel 19 The Netherlands	phone: +31 (0)10-7900100 fax: +31 (0)10-7900129	e-m









DATASHEET





VF2074	TQC Viscosity Cup Immersion (Similar to DIN 53211) Type: made of titanium anodised aluminum, with fixed nozzle orifice Ø 5 mm
VF2075	TQC Viscosity Cup Immersion (Similar to DIN 53211) Type: made of titanium anodised aluminum, with fixed nozzle orifice Ø 6 mm
VF2077	TQC Viscosity Cup Immersion (Similar to DIN 53211) Type: made of titanium anodised aluminum, with fixed nozzle, orifice Ø 8 mm
VF2213	TQC Viscosity Cup Immersion (Similar to DIN 53211) Type: made of stainless steel, with fixed nozzle orifice Ø 2 mm
VF2215	TQC Viscosity Cup DIN 53211 Immersion Type: made of stainless steel, with fixed nozzle orifice Ø 4 mm Optional: possible to certify by calibration with certified oils
VF2216	TQC Viscosity Cup Immersion (Similar to DIN 53211) Type: made of stainless steel, with fixed nozzle orifice Ø 5 mm
VF2217	TQC Viscosity Cup Immersion (Similar to DIN 53211) Type: made of stainless steel, with fixed nozzle orifice Ø 6 mm

# ACCESSORIES

CL0030	Calibration	Certificate	(if applicable)
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Dl0076 Stopwatch Type C510 digital LCD-display, 9h. 59 min. 59,99 sec.

VF2053 Viscosity Conversion Disc

# SPECIFICATIONS

# Immersion Viscosity Cup Type TA

Cup:	titanium anodized aluminium, 100 cc		
Nozzle:	stainless steel, fixed		
Handle:	stainless steel.		
Comp. with:	DIN 53211 (No. 4)		
Weight	176-179 gram*		
Max. Width:	63 mm		
Cup height:	74 mm		
Total height:	250 mm		

# Immersion Viscosity Cup Type TFR

TQC B.V. Molenbaan 19	2908 LL Capelle aan den IJssel The Netherlands	phone: +31 (0)10-7900100 fax: +31 (0)10-7900129	e-mail: info@tqc.eu www.tqc.eu
Total height:	250 mm	*(depending on orifice)	
Cup height:	74 mm		
Max. Width:	63 mm		
Weight	447-450 gram*		
Comp. with:	DIN 53211 (No. 4)		
Handle:	stainless steel.		
Nozzle:	stainless steel, fixed		
Cup:	stainless steel, 100 cc		
Intersion visco	osity cup type trk		





Article	Product	Ø	Viscosity	Flow	
Number	Descr.	Orifice	Range	times	
Number	Desci.	(mm)	(cSt)	(sec)	
VF2213	2	2			
VF2215	4	4	96-683	25-150	
VF2216	5	5			
VF2217	6	6			
VF2219	8	8			
* For information purposes only; all approximate					
values at	values at 25 °C.				

Article	Product	Ø	Viscosity	Flow
Number	Descr.	Orifice	Range	times
Number		(mm)	(cSt)	(sec)
VF2071	2	2		
VF2072	3	3		
VF2073	4	4	96-683	25-150
VF2074	5	5		
VF2075	6	6		
VF2077	8	8		
* For information purposes only; all approximate				
values at 25 °C.				

### USE

- According to the standard all measurements should be made at 23°C. Temperature drift during the test should be kept to a minimum and should not exceed  $\pm$  0,2 °C. Adjust the temperature of the material to be measured if necessary.
- Select the proper orifice to be used from the specification table, which depends on the expected viscosity range of the material to be measured. Lower the cup into the material so that the top rim is submerged.
- Place a thermometer into the cup as it is immersed and determine the temperature of the confined sample.
- Remove thermometer.
- Hold cup vertically by inserting index finger into handle ring. In a quick, steady motion, lift the cup out of the sample material, starting the timer when the cup breaks the surface. During the flow time, hold the cup no more than 15 cm above the level of the sample material.
- Stop the timer when the first definite break in the stream at the base of the cup is observed.

# SPECIAL CARE

With reasonable care, a viscosity cup is constructed to give many years of satisfactory service. To clean the instrument, use a soft cloth, NEVER clean by any mechanical means, such as steel brushes, sandpaper or other abrasive tools.

Particular care should be used in cleaning the orifice to avoid leaving deposits or scratches on internal surfaces. It's recommended to clean the cup promptly after each use, unless it will be used immediately for a rerun of the same material.

# SAFETY PRECAUTIONS

Determining viscosity may involve hazardous materials, operations and equipment. It is the responsibility of the executor to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to the measurement.

TQC B.V.	2908 LL Capelle aan den IJssel	phon	e: +31 (0)10-7900100	e-mail: info@tqc.eu
Molenbaan 19	The Netherlands	fax:	+31 (0)10-7900129	www.tqc.eu





### DISCLAIMER

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