

**Manufactured by Mitsubishi Rayon Co., Ltd.**

# Specification Sheet

RHVV-4002-CMR

High-Performance Plastic Optical Fiber

E s k a™

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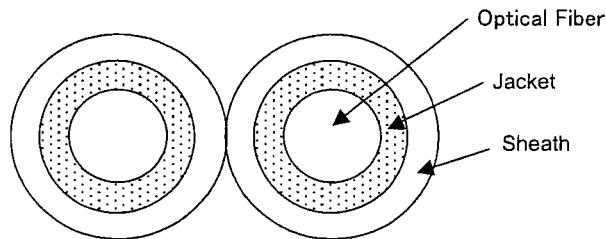
1. Scope  
This specification covers basic requirements for the structure and optical performances of RHVV-4002-CMR.
2. Structure

Table 1

Item		RHVV-4002-CMR				
		Specification				
		Unit	Min.	Typ.	Max.	
Optical Fiber	Core Material	—	Polymethyl-Methacrylate Resin			
	Cladding Material	—	Fluorinated Polymer			
	Core Refractive Index	—	1.49			
	Refractive Index Profile	—	Step Index			
	Numerical Aperture	—	0.5			
	Core Diameter	μm	920	980	1,040	
	Cladding Diameter	μm	940	1,000	1,060	
Jacket	Material	—	Poly-Vinyl-Chloride			
	Color	—	Black			
Sheath	Material	—	Poly-Vinyl-Chloride			
	Color	—	White			
	Dimension	Minor Axis	mm	2.13	2.20	2.27
		Major Axis	mm	4.30	4.40	4.50
Number of Fibers		—	2			
Approximate Weight		g/m	11			
Indication on the Jacket		—	indicated at one of the pair Green; refer the margin of the table			

Indication: (UL) E336876  MITSUBISHI RAYON ESKA OPTOHOME TYPE FT4 ■ ■ ■ ■ ■

Sectional View



## 3. Performances

Table 2

Item		Acceptance Criterion and/or [ Test Condition ]	RHVV-4002-CMR Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Physical Deterioration [ in a Dry Atmosphere ]	°C	-55	—	+70
	Operation Temperature	No Deterioration in Optical Properties * [ in a Dry Atmosphere ]	°C	-55	—	+70
		No Deterioration in Optical Properties ** [ under 85%RH condition ]	°C	—	—	+60
Optical Properties	Transmission Loss [ 650nm Collimated Light ]	[ 25°C 50%RH ]	dB/km	—	—	170
		[ Operation Temperature ]	dB/km	—	—	190
	Bandwidth	[ launch NA > Fiber NA ]	MHz·50m	40	—	—
Mechanical Characteristics	Minimum Bend Radius	Loss Increment $\leq 1.0$ dB [ A Quarter Bend ]***	mm	25	—	—
	Repeated Bending Endurance	Loss Increment $\leq 1$ dB [ in Conformity to the JIS C 6861 ]****	Times	5,000	—	—
	Tensile Strength	Tensile Force at 5% Elongation; in Conformity to the JIS C 6861 ]	N	140	—	—
	Twisting Endurance	Loss Increment $\leq 1$ dB [ Sample Length : 1m Tensile Force : 4.9N ]	Times	—	—	—
	Impact Endurance	Loss Increment $\leq 1$ dB [ in Conformity to the JIS C 6861 ]	N·m	—	—	—

All tests are carried out under temperature of 25°C unless otherwise specified.

\* Attenuation change shall be within +/- 10% after 1,000 hours.

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\*\*\* In the direction of the minor axis

\*\*\*\* Bend Angle +/-90° ,Bend Radius 15mm,Tension 1,000g