Standard properties

Grade	RMS702	RSC15	RECD15	RECS100L	RF400	RF400H	RFD400H	RF4000	
Thickness	(dtex)	7.0	15.0	15.0	100	400	400	400	4444
Diameter	(µm)	27	38	38	100	200	200	200	660
Length	(mm)	6.0	8.0	8.0	12.0	6.0	12.0	18.0	30.0
Tensile strength	(MPa)	1790	1430	1560	1230	1100	1400	1400	850
Young's modulus	(GPa)	45	36	41	28	27	33	33	23
Elongation at brea	ak (%)	5.8	6.5	6.5	12.5	9.0	7.3	7.3	9.0
Bundle		0	0	0	0			0	

These figures are not guaranteed values.

Standard packages

RSC15×8

W500x D150x H1000mm



RF4000×30 W510x D150x H1050mm



Standard mixing procedure



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 $\mathsf{KURALON^{TM}}$ and $\mathsf{KURALON}$ K- $\mathsf{II^{TM}}$ are the product brand by Kuraray Co., Ltd.

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2023 07





PVA fibers



For concrete and mortar reinforcement







kuraray

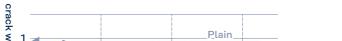
KURALON™ and KURALON K-II™ - PVA(Polyvinyl alcohol) fibers with outstanding properties and unique features contributing to sustainable construction

Crack control

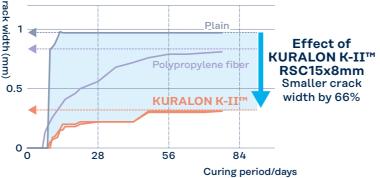
KURALON™ and KURALON K-II™ bridge and keep cracks of concrete and mortar very small due to high strength, high modulus, and good affinity with cement.

Mix design (kg/m³)

			,			
W/C (%)	S/C (W/W)	Cement	Water	Sand	Fibers	
					_	Plain
55	4.0	420	231	1680	3.9	KURALON K-II™ RSC15x8
					2.73	Polypropylene fiber



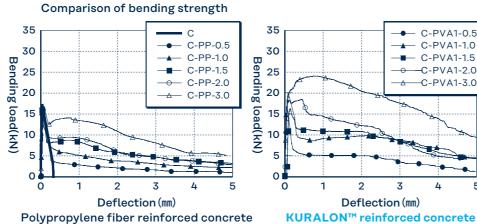
Comparison of dry shrinkage suspension

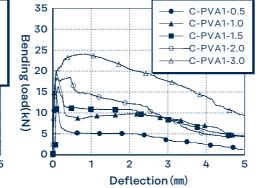


Test result: crack width development of ring specimen (Kuraray's study based on ASTM C1581)

Bending reinforcement

KURALON™ and KURALON K-II™ -reinforced concrete shows better bending strength, especially in the very early post crack period.





Mix design (kg/m³)

W/C (%)	S/a (%)	Cement	Water	Gravel	Sand	Chemical admixture 1	Chemical admixture 2	Chemical admixture 3	Fiber
47	55.3	383	180	750	904	4.98	0.0306		Below

Fiber materials

	Index	(mm)	Length (mm)	(g/cm ³)	(MPa)	Young's modulus (GPa)	(Vol%)
KURALON™ RF4000	PVA1	0.66	30	1.3	880	29	0.5,1.0,1.5,
Polypropylene fiber	PP	0.5×1.0	30	0.91	530	10.5	2.0,3.0

Reference

Vol.28, No.1, pp.389-394, 2006

Experimental study on basic properties of fiber reinforced cement-based composite materials
Proceedings of the Japan Concrete Institute (In Japanese), KURALON™ and KURALON K-II™ are synthetic fibers made from PVA for reinforcing mortar and concrete. Compared to commodity fibers, it has various features such as high strength, high modulus, good affinity with cement, and alkali resistance. Taking advantage of these features, KURALON™ and KURALON K-II™ contribute to sustainable construction.

Benefits



