

ProFiber S Conversion Chart - 4,000-psi Concrete For Commercial and Light Industrial Slab On Ground Applications

Original Design	1'6x6 WWF W2.9/W2.9	1'6x6 WWF W4.0/W4.0	4x4 WWF W1.4/W1.4	4x4 WWF W2.9/W2.9	4x4 WWF W2.0/W2.0	#3 Rebar @ 24" OC	#3 Rebar @ 18" OC	#3 Rebar @ 15" OC	#3 Rebar @ 12" OC	#4 Rebar @ 24" OC	#4 Rebar @ 18" OC	#4 Rebar @ 15" OC
A_s , in ² /ft	0.058	0.080	0.042	0.087	0.120	0.055	0.073	0.088	0.110	0.100	0.130	0.160
Thickness in inches	pcy	pcy	pcy	pcy	pcy	pcy	pcy	pcy	pcy	pcy	pcy	pcy
4	3.0	3.5	3.0	4.5	NOTE 2	3.0	3.0	3.5	6.0	5.0	8.0	NOTE 2
4 1/2	3.0	3.0	3.0	3.5	6.5	3.0	3.0	3.0	4.5	4.0	6.25	NOTE 2
5	3.0	3.0	3.0	3.0	5.5	3.0	3.0	3.0	3.5	3.0	5.0	NOTE 2
5 1/2	3.0	3.0	3.0	3.0	4.5	3.0	3.0	3.0	3.0	3.0	4.5	7.0
6	3.0	3.0	3.0	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.5	6.0
6 1/2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0
7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0
7 1/2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5
3'8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

This Chart is a Guideline only! Final dosage recommendations must come through Premiere Concrete Admixtures Engineering Dept.

Notes:

- For 6x6 WWF smaller than W2.9, a microsynthetic fiber can likely be used. Please consult your local Premiere Concrete Admixtures Rep.
- Premiere Concrete Admixtures recommended addition rate for ProFiber S is 3.0 to 7.0 lbs per cubic yard. For quantities outside this range consult your local Premiere Concrete Admixtures Rep.
- Slab thickness should be based on project requirements per ACI and PCA guidelines for slab on ground design. For slabs thicker than 8" please consult your local Premiere Concrete Admixtures Rep.

Assumptions:

- This chart is based on ASTM C-1609 Residual Strength Factors (Re.3) values found for ProFiber S in a controlled laboratory environment. Actual Re.3 values may vary based on a number of factors including but not limited to the concrete mix design, mixing and placing procedures, environmental factors, etc. This chart is meant as a general comparison of post crack strength performance of ProFiber S and typical, secondary steel reinforcement when used in commercial and light industrial applications. Note that fiber performance should not be based solely on the Re.3 value but on the specific application and overall concrete performance required for that application.
- Fiber dosages have been estimated based upon a steel yield stress- f_y , where $f_y = 65,000$ psi for WWR and 60,000 psi for rebar. Reinforcement assumed to be for secondary, temperature-shrinkage reinforcement only and placed in the top one-fourth of the slab but with a minimum cover of 1". Do not use ProFiber S to replace structural levels of steel reinforcement.
- This chart assumes standard contraction joint spacing per latest ACI Guidelines. Contact Premiere Concrete Admixtures representatives when considering modifications to standard ACI 302.1R and ACI 360R joint spacing recommendations.

DISCLAIMER AND LIMITATION OF LIABILITY

Premiere Concrete Admixtures's fibers are intended to reduce plastic shrinkage cracking, provide secondary temperature shrinkage reinforcement, and add post-first crack toughness to plain, structural concrete slabs-on-ground. Premiere's fibers should not be used in place of structural reinforcement in structurally reinforced slabs-on-ground. This publication is not to be used in place of engineering advice. Premiere Concrete Admixtures recommends that each user determine the suitability of the product(s) for their particular application. Premiere engineering and sales personnel are available to assist in selecting the appropriate fiber for a given specification / application. Said personnel will provide an overview of anticipated performance based upon experience and testing data. Premiere personnel will provide recommendations, but are not the final arbiters on design. All design changes, recommendations, and final determinations of product suitability are the sole responsibility of the Engineer of Record. While the information contained herein is accurate to the best of our knowledge, Premiere Concrete Admixtures does not warrant its accuracy or completeness. This publication is being provided "as is", without any warranty, either expressly or implicitly, including, but not limited to, warranties of merchantability and fitness for a particular purpose. The only warranty made by Premiere Concrete Admixtures for its products is set forth in our product data sheets or other such warranties as agreed to in writing. Premiere personnel will provide onsite support where our products are utilized and when deemed necessary, but will not participate in the supervision of any project. Premiere's responsibility is to support our customers and to provide our customers with the best materials and assistance in marketing these products.