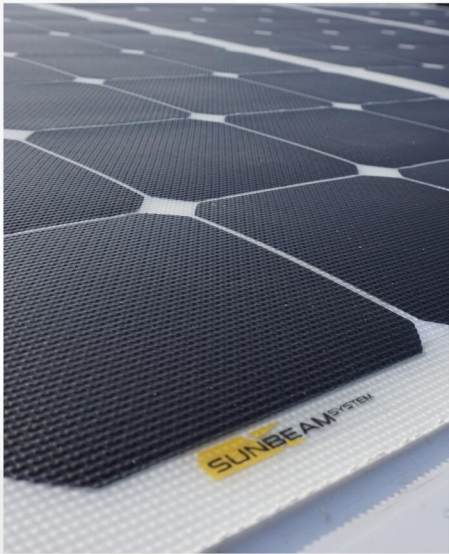


# TOUGH+



TOUGH+ 82W FLUSH



TOUGH+ 58W FLUSH

- 16% MORE POWER
- 2020 FLAT FLUSH CABLE
- UV-PROOF & ANTISLIP
- 5 YEAR WARRANTY
- 3M MOUNTING

## TOUGH+ IS SPECIFICALLY DEVELOPED FOR PROFESSIONAL PURPOSES

The SUNBEAMsystem Tough+ series is developed for professional purposes and all kinds of high-end installations.

All models are fitted with Sunpower™ cells with an efficiency of no less than 23.7%, resulting in a high production on even the smallest surfaces.

Tough+ is equipped with the same superior materials that have previously been developed for the original Tough series by SUNBEAMsystem. The innovative Tough surface offers a longer lifespan than any other thin and lightweight solar panels. The anti-slip profile is not only practical for deck mounting; it also catches more light in low sun angles. In addition, the dirt-repellent properties also improve daily production by helping to keep the panels clean.

Being only 3mm thin, the panels can be seamlessly integrated on any hard surface (both flat and slightly curved). The flat SUNBEAMsystem Flush power cable will be invisible after installation, leaving no external wiring exposed, resulting in a robust and durable end result.

The Tough+ series is shipped without stainless steel eyes and includes a separately packed double-sided 3M sticker sheet for easy mounting. If you prefer to use a kit instead, we recommend a soft flexible glue like the white Sikaflex 291i.

Art. #	Model	W <sub>p</sub>	Shadow Optimized	Size (cm)	Sunpower Cell	Max system voltage (incl by-pass diode)	V <sub>mp</sub>	I <sub>mp</sub>	V <sub>oc</sub>	I <sub>sc</sub>	P <sub>10</sub> +/-	Kg	Cable	Eyelets
TP106x54F	Tough+ 116W Flush	116.1	Yes	106x54	23.70%	30V (80V)	19.87	5.84	23.07	6.5	3%	2	2m	No
TP78x54F	Tough+ 82W Flush	82.3	Yes	77.8x54	23.70%	30V (80V)	21.12	3.9	24.52	4.36	3%	1.5	2m	No
TP54x53F	Tough+ 58W Flush	58.1	-	54.5x53.5	23.70%	30V (80V)	19.87	2.92	23.07	3.08	3%	1	2m	No
TP38x53F	Tough+ 39W Flush	38.7	-	37.8x53.5	23.70%	30V (80V)	19.88	1.95	23.08	2.05	3%	0.7	2m	No