

# WHAT WILL YOUR LINE ACTUALLY BREAK AT?

An essential guide to  
nylon, flourocarbon and  
braided main lines.



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## WHAT LINE IS BEST FOR YOU?

*As so many lines are labelled the same but behave very differently, we suggest buying line by diameter rather than by the breaking strain on the label.*

### **For weed and snag free situations...**

We recommend lines of between 0.33mm and 0.35mm. These will usually break between 16lb and 18lb.

### **For waters with snags and heavy weed...**

Thicker lines of between 0.35mm and 0.40mm will have better abrasion resistance and be stronger, usually breaking between 20lb and 22lb.

### **For distance casting...**

Lower diameter lines of 0.25mm to 0.30mm generally enable longer casts and will usually break between 10lb and 15lb.

### **One last thing...**

Remember, diameter and breaking strain do not give the complete picture. Cost, suppleness, abrasion resistance and value for money should also be considered.



## WHAT BRAID IS BEST FOR YOU?

*Braid can be an essential part of any angler's tackle, but there are a few things to consider when choosing which one to buy...*



### **FLOATING BRAID**

Ideal for marker float use, spodding / spombing or drifting and lure fishing for pike.

### **SINKING BRAID**

Ideal for pinning down main line when a much less detectable approach is required.

### **Braid, the pros...**

Most braids are exceptionally thin, making them superior casting lines, and have virtually no stretch, which improves bite indication, makes them more sensitive for feature finding and ideal for spodding / spombing. Braids generally deteriorate a lot more slowly than nylon or fluorocarbon, so the need to re-spool is less and it is also less troublesome with line twist.

### **Braid, the cons...**

Care must be taken when spooling new braid. It is important not to overfill your reels otherwise wind knots will occur, and it is best loaded on to your spools wet and under tension. The lack of stretch in braid can result in fish losses due to hook pulls or hook link breakages, so extra care needs to be taken when playing fish, and this zero stretch can also result in a broken rod if the braid gets wrapped around rings during casting or general handling.

## WHAT WILL YOUR LINE ACTUALLY BREAK AT?

*Almost every line commonly used for carp fishing has an underrated breaking strain indicated on the spool or box. With a good knot, most lines will always break at a higher strain.*

With no international guidelines for indicating breaking strain or diameter, most manufacturers underrate lines to different degrees. A line labelled 12lb by one company may consistently break around 20lb, whereas a line labelled 12lb by a different company may regularly break at just 14lb. To give a better idea of the specifications of the main lines that we sell we have tested breaking strains and diameters ourselves.

### **How we measure the breaking strain**

We took line from different points on the spool and measured breaking strains five times using our own custom and precision made line tester, and diameters using a high quality digital calliper. Breakage tests were conducted with five turn grinner knots and a knotless knot to mimic what the average angler uses. Braid diameters shown below are as accurate as possible, but unlike nylon lines, some braids do not have round profiles. Each spool of line was tested brand new, but we accept that the performance of most lines varies with age, and that different batches of lines supplied to shops may show slight differences in performance. However we hope the chart will provide useful general guidance.





## NYLON MAIN LINES

For the purpose of our line tests we use a Five Turn Grinner Knot. Our experience and manufacturers suggestions however, sometimes suggest that a Palomar Knot or Tucked Blood Knot can often give higher breaking strain results.

MAKE OF LINE	Stated Strain	Average Strain	Stated Diameter	Measured Diameter
<b>Berkley Big Game Green</b>	10lb	13.88lb	0.31mm	0.30mm
	12lb	15.75lb	0.36mm	0.34mm
	15lb	20.75lb	0.38mm	0.38mm
<b>Daiwa Sensor Brown</b>	4lb	5.88lb	0.205mm	0.20mm
	6lb	8.5lb	0.235mm	0.22mm
	8lb	10.75lb	0.26mm	0.25mm
	10lb	14.63lb	0.31mm	0.30mm
	12lb	16.5lb	0.33mm	0.32mm
	15lb	17.63lb	0.37mm	0.36mm
	18lb	21.63lb	0.405mm	0.40mm
	20lb	25lb	0.435mm	0.43mm
	30lb	32.13lb	0.570mm	0.57mm
<b>Daiwa Sensor Clear</b>	8lb	10.12lb	0.26mm	0.25mm
	10lb	15.87lb	0.31mm	0.30mm
	12lb	16.75lb	0.33mm	0.32mm
	15lb	21.37lb	0.37mm	0.35mm
	18lb	24.25lb	0.405mm	0.40mm
<b>E-S-P Syncro XT</b>	10lb	14lb	0.30mm	0.29mm
	12lb	15.75lb	0.33mm	0.31mm
	15lb	21.75lb	0.37mm	0.35mm
	18lb	21.63lb	0.40mm	0.39mm
<b>E-S-P Syncro Loaded XT</b>	10lb	12.84lb	0.30mm	0.31mm
	12lb	14.64lb	0.33mm	0.33mm
	15lb	18.34lb	0.37mm	0.37mm
	18lb	21.99lb	0.40mm	0.40mm
<b>Fox Soft Steel Dark Camo</b>	13lb	13.31lb	0.309mm	0.30mm
	16lb	14.39lb	0.331mm	0.32mm
	18lb	15.49lb	0.350mm	0.34mm
<b>Fox Soft Steel Light Camo</b>	13lb	13.49lb	0.309mm	0.30mm
	16lb	13.54lb	0.331mm	0.32mm
	18lb	14.44lb	0.350mm	0.34mm
<b>E-S-P Crystal Carp Mono</b>	10lb	11.13lb	0.30mm	0.31mm
	12lb	13.38lb	0.325mm	0.32mm
	15lb	15lb	0.35mm	0.36mm
	18lb	17.63lb	0.375mm	0.375mm
<b>E-S-P Olive Carp Mono</b>	10lb	11lb	0.30mm	0.28mm
	12lb	12.63lb	0.325mm	0.30mm
	15lb	14.13lb	0.35mm	0.32mm
	18lb	16.5lb	0.375mm	0.35mm
<b>Fox Exocet Green</b>	13lb	14.67lb	0.309mm	0.29mm
	16lb	14.22lb	0.331mm	0.32mm
	18lb	16.36lb	0.35mm	0.33mm
<b>Fox Soft Steel Camo</b>	10lb	13.5lb	0.286mm	0.28mm
	12lb	13.63lb	0.309mm	0.31mm
	15lb	15lb	0.331mm	0.33mm
<b>Gardner GR60</b>	12lb	18.75lb	0.35mm	0.35mm
	15lb	24lb	0.40mm	0.40mm
<b>Gardner GR60 Green</b>	12lb	15.76lb	0.35mm	0.34mm
	15lb	17.84lb	0.40mm	0.39mm
<b>Gardner GR60 Clear</b>	12lb	17.76lb	0.35mm	0.34mm
	15lb	20.36lb	0.40mm	0.39mm
<b>Gardner Hydro Tuff</b>	12lb	18.44lb	0.35mm	0.34mm
	15lb	19.80lb	0.38mm	0.37mm
<b>Gardner Pro Light Blend</b>	12lb	14.29lb	0.30mm	0.30mm
	15lb	15.49lb	0.35mm	0.34mm
<b>Gardner Pro</b>	12lb	14.29lb	0.30mm	0.30mm
	15lb	15.49lb	0.35mm	0.34mm

MAKE OF LINE	Stated Strain	Average Strain	Stated Diameter	Measured Diameter
<b>Gold Label Pro Clear</b>	10lb	12.13lb	0.26mm	0.26mm
	12lb	14.5lb	0.29mm	0.29mm
	16lb	19.75lb	0.34mm	0.34mm
	20lb	24.75lb	0.40mm	0.38mm
<b>Gold Label Pro Gold</b>	8lb	11.38lb	0.28mm	0.27mm
	10lb	11.88lb	0.305mm	0.29mm
	12lb	17.5lb	0.355mm	0.35mm
	15lb	22lb	0.38mm	0.38mm
	15lb	22lb	0.38mm	0.38mm
<b>Gold Label Pro Distance</b>	10lb	15.13lb	0.30mm	0.29mm
	12lb	18.75lb	0.35mm	0.34mm
	15lb	17.63lb	0.38mm	0.38mm
<b>Gold Label Pro Tough</b>	27lb	30.08lb	0.47mm	0.48mm
	36lb	23.49lb	0.51mm	0.51mm
<b>Korda Adrena-Line</b>	10lb	11.75lb	0.30mm	0.30mm
	12lb	13.25lb	0.33mm	0.33mm
	15lb	15.63lb	0.35mm	0.36mm
	18lb	17.63lb	0.38mm	0.39mm
<b>Korda Kruiser Control</b>	6lb	9.38lb	0.25mm	0.24mm
	8lb	11.75lb	0.28mm	0.28mm
	10lb	11.25lb	0.30mm	0.29mm
	12lb	16.25lb	0.33mm	0.33mm
<b>Korda Subline Brown</b>	10lb	13.5lb	0.30mm	0.30mm
	12lb	17.13lb	0.35mm	0.36mm
	15lb	19.25lb	0.40mm	0.40mm
	20lb	22lb	0.43mm	0.43mm
<b>Korda Subline Green</b>	10lb	12.88lb	0.30mm	0.29mm
	12lb	17.88lb	0.35mm	0.35mm
	15lb	18.88lb	0.40mm	0.39mm
<b>Korda Touchdown Sub Brown</b>	10lb	12.81lb	0.30mm	0.29mm
	12lb	17.13lb	0.35mm	0.34mm
	15lb	19.97lb	0.40mm	0.40mm
<b>Korda Touchdown Sub Green</b>	10lb	15.17lb	0.30mm	0.30mm
	12lb	16.96lb	0.35mm	0.35mm
<b>Krystonite</b>	8lb	8.62lb	0.25mm	0.24mm
	10lb	13.62lb	0.29mm	0.28mm
	12lb	13.75lb	0.31mm	0.30mm
	15lb	16.12lb	0.36mm	0.35mm
	18lb	22.5lb	0.41mm	0.40mm

MAKE OF LINE	Stated Strain	Average Strain	Stated Diameter	Measured Diameter
<b>Nash Hardcore Brown</b>	10lb	9.05lb	0.28mm	0.27mm
	12lb	9.65lb	0.30mm	0.29mm
	15lb	13.54lb	0.35mm	0.34mm
<b>Nash NXT D-Cam Mono</b>	12lb	18.38lb	0.35mm	0.34mm
	15lb	21.25lb	0.38mm	0.39mm
	18lb	24.88lb	0.43mm	0.43mm
<b>Nash Zig Flo</b>	8lb	7.8lb	0.23mm	0.22mm
	10lb	11.25lb	0.28mm	0.27mm
	12lb	10.61lb	0.30mm	0.29mm
<b>Prologic XLNT Camo HP</b>	12lb	13.18lb	0.28mm	0.28mm
	14lb	14.27lb	0.30mm	0.30mm
	16lb	15.38lb	0.33mm	0.34mm
<b>Shimano Catana</b>	8lb	14.13lb	0.28mm	0.28mm
	10lb	16lb	0.30mm	0.30mm
	12lb	18.88lb	0.33mm	0.33mm
	15lb	20.5lb	0.35mm	0.35mm
<b>Shimano Tribal Carp</b>	10lb	13.41lb	0.305mm	0.26mm
	12lb	15.72lb	0.33mm	0.32mm
	15lb	19.52lb	0.38mm	0.39mm
<b>TF Gear Nan-Tec Mono Red Mist</b>	12lb	12lb	0.30mm	0.27mm
	15lb	16.62lb	0.35mm	0.34mm
<b>Ultima Power Carp Clear</b>	10lb	14.38lb	0.28mm	0.29mm
	12lb	17.50lb	0.31mm	0.31mm
	14lb	19.63lb	0.33mm	0.34mm
	16lb	22lb	0.36mm	0.38mm
<b>Ultima Power Carp Green</b>	12lb	17.50lb	0.31mm	0.31mm
	14lb	19.63lb	0.33mm	0.34mm
	16lb	22lb	0.36mm	0.38mm
<b>Ultima Power Carp Ultra</b>	12lb	14.38lb	0.31mm	0.31mm
	14lb	9lb	0.33mm	0.33mm
	16lb	10.88lb	0.36mm	0.38mm
	18lb	13.63lb	0.38mm	???????
<b>Ultima Power Carp XR</b>	12lb	11.73lb	0.31mm	0.30mm
	14lb	15.53lb	0.33mm	0.36mm
	16lb	16.35lb	0.36mm	0.37mm
<b>Ultima Zero</b>	10lb	10.78lb	0.28mm	0.29mm
	12lb	12.80lb	0.30mm	0.31mm
	14lb	14.41lb	0.32mm	0.32mm
	16lb	12.42lb	0.35mm	0.36mm



## FLUOROCARBON MAIN LINES

Fluorocarbons are usually very abrasion resistant, virtually invisible in water and have fast sinking qualities.

MAKE OF LINE	Stated Strain	Average Strain	Stated Diameter	Measured Diameter
Berkley Super Strong 100% Fluorocarbon	12lb	13lb	0.33mm	0.33mm
	15lb	14.5lb	0.381mm	0.365mm
	17lb	14.88lb	Unstated	0.38mm
Daiwa Floorit Brown	10lb	9.26lb	0.27mm	0.26mm
	12lb	10.55lb	0.31mm	0.28mm
	14lb	14.13lb	0.33mm	0.34mm
	17lb	16.08lb	0.37mm	0.38mm
Daiwa Floorit Clear	12lb	11.09lb	0.31mm	0.28mm
	14lb	13.14lb	0.33mm	0.34mm
	17lb	16.08lb	0.37mm	0.38mm
Fox Illusion®	16lb	13.01lb	0.30mm	0.34mm
	19lb	16.26lb	0.35mm	0.38mm
Gardner Mirage	12lb	11.75lb	0.33mm	0.33mm
	14lb	12.88lb	0.35mm	0.35mm
	16lb	13.38lb	0.37mm	0.36mm
Korda Kontour	12lb	11.5lb	0.33mm	0.31mm
Taska Deceptive	16lb	10.66lb	0.33mm	0.34mm
	20lb	14.95lb	0.37mm	0.38mm
TF Gear Secret Trap	17lb	13.38lb	0.35mm	0.35mm
Ultima Pure Power Fluorocarbon Clear	12lb	9.38lb	0.30mm	0.30mm
	14lb	10.75lb	0.32mm	0.32mm
	16lb	11.5lb	0.35mm	0.35mm
Ultima Pure Power Fluorocarbon Green	12lb	8.25lb	0.30mm	0.30mm
	14lb	10.5lb	0.32mm	0.32mm
	16lb	13lb	0.35mm	0.35mm
X Line	12lb	9.38lb	0.26mm	0.28mm
	15lb	10.25lb	0.31mm	0.29mm
	17lb	11.13lb	0.33mm	0.31mm
	20lb	12.63lb	0.37mm	0.35mm
X2 Secure	15lb	13.82lb	0.30mm	0.31mm
	20lb	15.14lb	0.35mm	0.34mm



## BRAIDED MAIN LINES

Braid can be an essential part of any angler's tackle. Ideal for main line, feature finding and spodding.



MAKE OF LINE	Stated Strain	Average Strain	Stated Diameter	Measured Diameter
Avid Carp Depth Charge Marker Braid	40lb	17.63lb	0.10mm	0.26mm
Berkley Fireline Braid	14lb	21.38lb	0.23mm	0.28mm
	20lb	26.38lb	0.30mm	0.34mm
	30lb	38.13lb	0.36mm	0.43mm
Berkley Fireline Tournament Exceed	14lb	21lb	0.23mm	0.26mm
	20lb	24.88lb	0.30mm	0.33mm
	30lb	38.13lb	0.36mm	0.43mm
Berkley Nanofil	12.64kg (28lb)	12lb	0.20mm	0.23mm
Berkley Whiplash Braid	20lb	15.88lb	0.06mm	0.20mm
	30lb	17.63lb	0.10mm	0.26mm
	50lb	29.31lb	0.17mm	0.31mm
Daiwa Tournament 8 Braid	50lb	26lb	0.26mm	0.26mm
Dynon SK Braid	22lb	19.88lb	Unstated	0.30mm
	34lb	27.25lb	Unstated	0.39mm
E+S+P Spod & Marker Braid	20lb	18.88lb	0.28mm	0.28mm
Fox Exocet Distance Spod & Marker Braid	23lb	13.5lb	0.18mm	0.24mm
Fox Exocet MK2 Marker Braid	20lb	10.23lb	0.18mm	0.24mm
Fox Exocet MK2 Spod Braid	20lb	15.32mm	0.18mm	0.24mm
Fox Submerge®	25lb	19.10lb	0.16mm	0.31mm
	40lb	25.58lb	0.20mm	0.33mm

MAKE OF LINE	Stated Strain	Average Strain	Stated Diameter	Measured Diameter
Fox Gravitrone Pro	15lb	13.88lb	0.30mm	0.31mm
	20lb	18.13lb	0.35mm	0.37mm
	25lb	21.37lb	0.40mm	0.38mm
Gardner Kinetic	15lb	20.4lb	0.23mm	0.30mm
Nash Bullet Braid	15lb	19.5lb	0.30mm	0.32mm
	20lb	20.63lb	0.35mm	0.34mm
	25lb	22.63lb	0.40mm	0.34mm
Nash NXT Bullet Braid	15lb	18.13lb	0.23mm	0.30mm
	20lb	23.63lb	0.30mm	0.35mm
	25lb	26.63lb	0.34mm	0.38mm
Spiderwire Ultracast Fluoro Braid	20lb	19lb	0.25mm	0.27mm
	30lb	23.63lb	0.30mm	0.31mm
TF Gear Banana Braid	30lb	24lb	0.28mm	0.24mm
Korda Apex	30lb	24.5lb	0.23mm	0.33mm
	50lb	33.30lb	0.36mm	0.38mm
Korda Marker Braid	20lb	13.39lb	0.16mm	0.24mm
Korda Spod Braid	20lb	13.93lb	0.16mm	0.23mm
Ultima Vertibraid	20lb	20lb	Unstated	0.25mm
	30lb	27.75lb	Unstated	0.34mm
X2 Durabraid	31.5lb (14.3kg)	21lb	0.20mm	0.24mm
	37lb (16.8kg)	24lb	0.25mm	0.32mm
	42lb (19.3kg)	27lb	0.30mm	0.35mm
	42.5lb (19.3kg)	27lb	0.30mm	0.35mm
	42.5lb (19.3kg)	27lb	0.30mm	0.35mm