

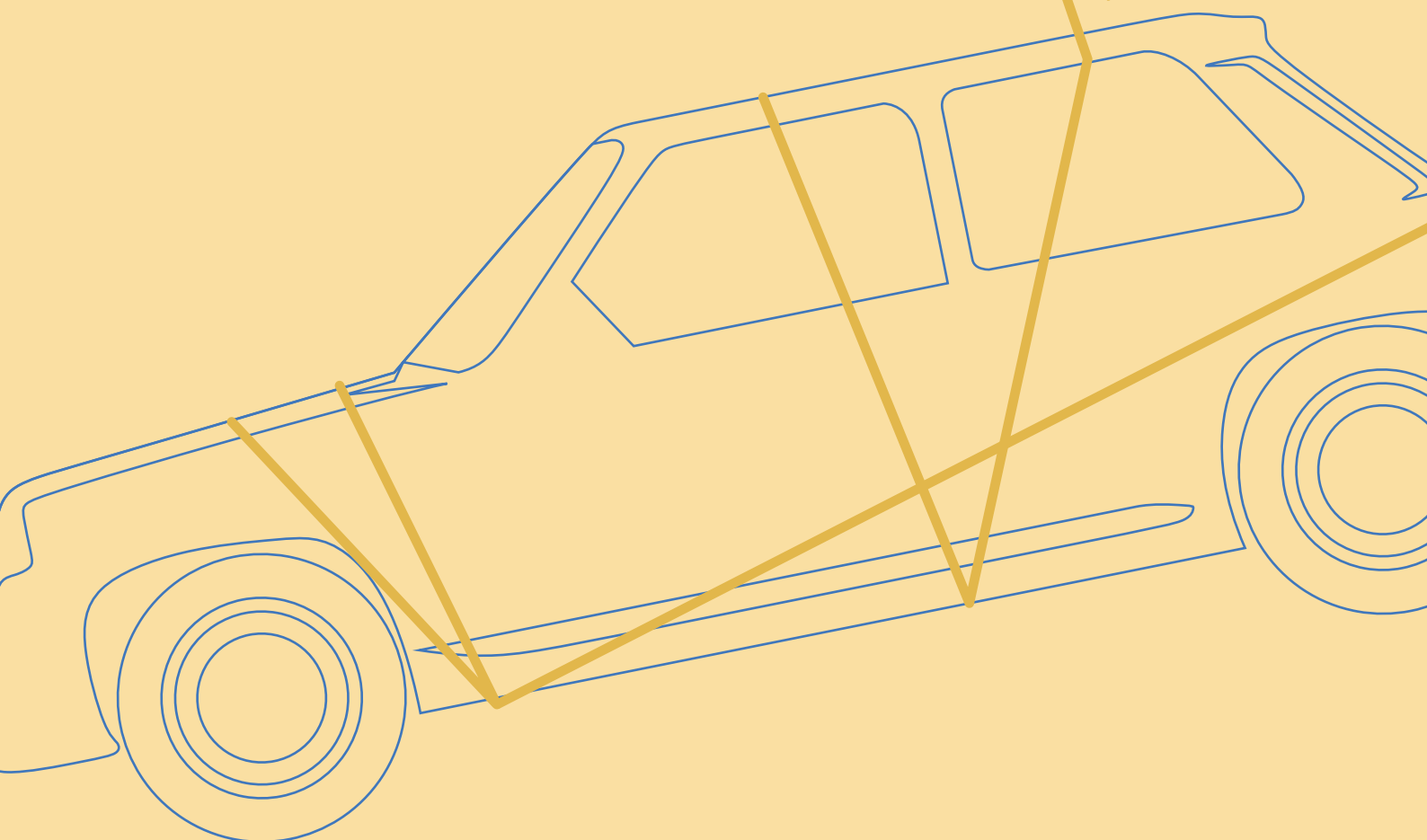
Filament

Chopped Fiber

Stable Fiber

Spun Yarn

Comparison at 1.5mm in diameter



It was the image based on the theoretical value and did not really experiment on the illustration to the last.

Can be applied to



자동차 타이어
Vehicle tires



경주용 자동차 타이어
Racing tires



라이더 슈트
Rider Suits



광케이블
Optical cable



로봇 케이블 보호
Cable cover
for welding robots



기계 케이블 보호
Cable cover
for welding machines



유압호스
Pneumatic hoses



방화복
Firefighter Garment



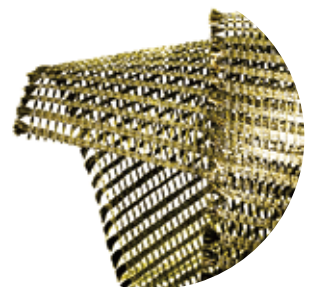
안전보호구
Safety gloves



내열복
heat resistant garment



와이어, 로프
Wire, Rope



시멘트 보강재
토목/건축자재
Reinforcement
for Cements

Characteristic of ZYLON

The strongest^{*1} fiber with amazing flame resistance^{*2}



HIGH
STRENGTH

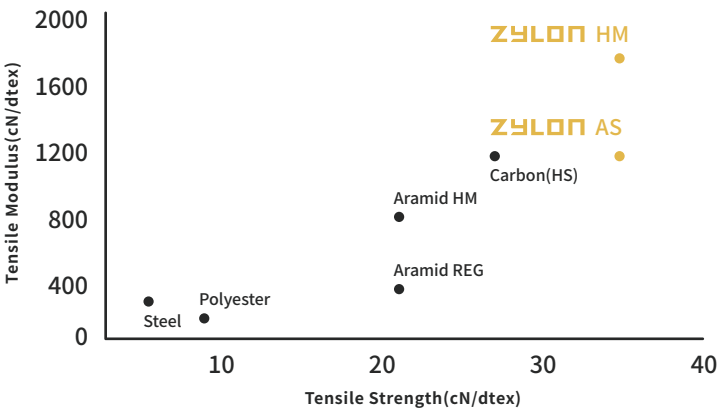
TENSILE
MODULUS

FLAME
RESISTANCE

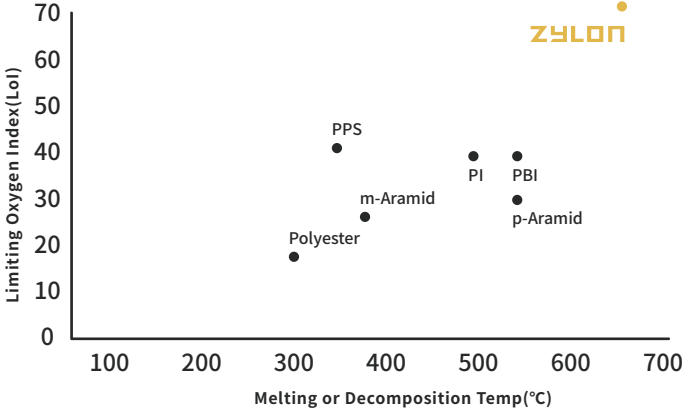
HEAT
RESISTANCE

^{*1} Comparison data among existing organic fibers (As of May 2015)
^{*2} Decomposition temperature of 650°C, Limiting oxygen index 68

1. Tensile Strength and Modulus



2. Flame Resistance and Thermal Stability



3. Comparison with other Fibers

	Tensile Strength			Tensile Strength			Elongation at Break	Density	Moisture Regain	LOI	Heat Resistance*
	cN/dtex	g/d	GPa	cN/dtex	g/d	GPa					
ZYLON-AS	37	42	5.8	1150	1300	180	3.5	1.54	2.0	68	650
ZYLON-HM	37	42	5.8	1720	2000	270	2.5	1.56	0.6	68	650
p-Aramid	19	22	2.8	750	850	109	2.4	1.45	4.5	29	550
m-Aramid	4.7	5.3	0.65	124	140	17	22	1.38	4.5	29	400
Steel Fiber	3.5	4	2.8	260	290	200	1.4	7.8	0	-	-
Carbon Fiber	20	23	3.5	1310	1480	230	1.5	1.76	-	-	-
PBI	2.7	3.1	0.4	40	45	5.6	30	1.4	15	41	550
Polyester	8	9	1.1	110	125	15	25	1.38	0.4	17	260

*Melting or Decomposition

The information on this page, to the best of our knowledge, is accurate and correct, However, Toyobo makes no warranty and assumes no liability whatsoever in connection with any use of this information. Users determine for themselves the suitability for their intended use of the material. This information is subject to revision as new information becomes available.

3. ZYLON fiber properties

Type	AS(Regular)	HM(High Modulus)
Filament decitex (dtex)	1.7	1.7
Density (g/cm3)	1.54	1.56
Moisture Regain (65% RH) (%)	2.0	0.6
Tensile Strength (cN/dtex)	37	37
(GPa)	5.8	5.8
(KSI)	840	840
Tensile Modulus (cN/dtex)	1150	1720
(GPa)	180	270
(MSI)	26	39

Type	
Elongation at Break (%)	3.5
Melting Temperature (°C)	none
Decomposition Temperature in Air (°C)	650
Coefficient of Thermal Expansion (ppm/°C)	-6
Limiting Oxygen Index	68
Dielectric Constant at 100kHz	-
Dissipation Factor	0.001

AS(Regular)	HM(High Modulus)
3.5	2.5
none	none
650	650
-6	-6
68	68
-	3.0
-	0.001

Technical Data Sheet



MSDS Sheet



Can be applied to



자전거 스포크
Bicycle Spokes



자전거 타이어
Bicycle Tires



야구공
Baseball



야구글로브
Baseball Glove



탁구채
Table Tennis Racket



테니스 라켓
Tennis Racket



배드민턴 라켓
Badminton Racket



낚싯대
Fishing rod



요트 로프
Yacht Ropes



사용시 주의사항 Cautions for use
봉제작업 및 제품보관시 반드시 빛에 노출되지 않도록 해주세요. 변색의 우려가 있습니다.
Be sure not to be exposed to light when sewing or storing products.
There is a risk of discoloration.

일반적인 커터칼, 일반가위, 봉제용 가위로는 작업이 되지 않습니다.
작업은 하기의 해당 특수가위로 하시길 권장합니다.
It doesn't work with a regular cutter, regular scissors, or sewing scissors.
We recommend you to do the work as below special sewing scissors,
ARSUPER 526H.

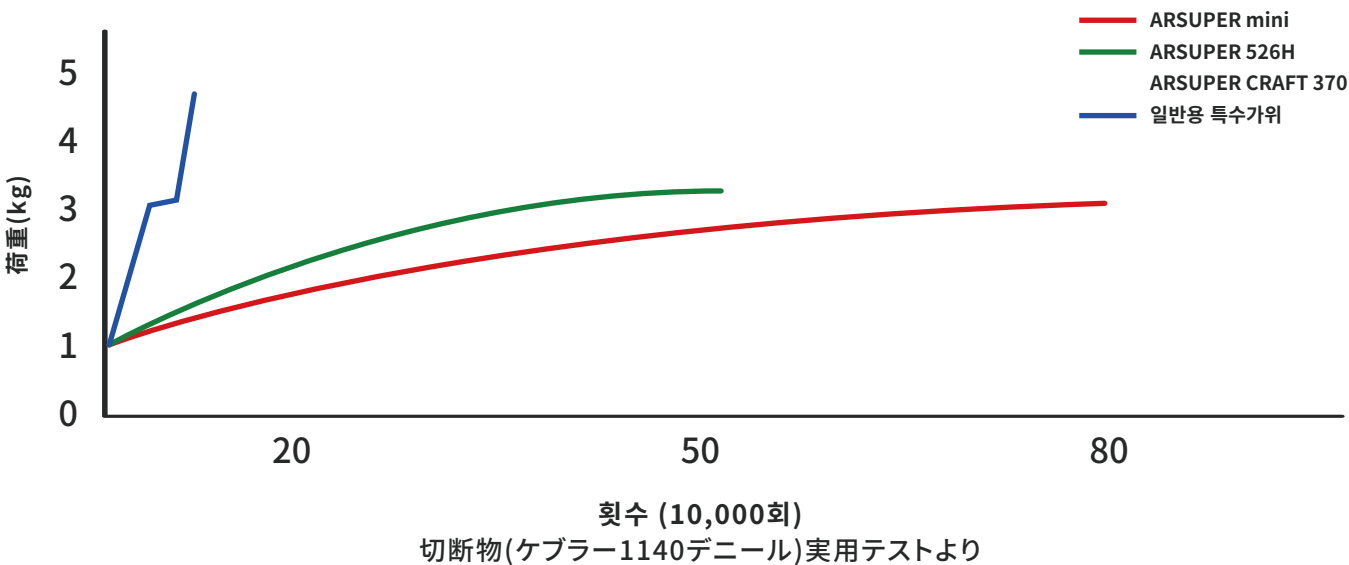


제품 비교표

Comparison with materials for
hard-alloy abrasion-resistance products

Material	Specific gravity	Hardness		Compressive strength Kg t/mm ²	Tensile strength Kg t/mm ²	Tenacity Mpam 1/2
		HRC	HV			
ARSUPER mini	14.3	80.5	1700	630	180	9.9
ARSUPER 526H ARSUPER CRAFT370	7.85	72	1150	490	220	2.0
일반용 특수가위	7.85	61	720	-	-	-

절단하중 내구성



Company information

(주)핍아텍은 기계 산업, 전기/전자 산업, 자동차 산업, 로봇산업, 조선업, 철도산업, 건축자재 등 다양한 분야에서 세계 최고의 품질과 서비스를 제공하는 제조사들의 대한민 국내 공식대리점을 하고 있으며, 2019년부터 TOYOBO의 판매자회사로부터 판매권을 인정받고, ZYLON Fiber를 공식적으로 독점수입하고 있습니다.

TOYOBO
Corporate Philosophy



TOYOBO
ISO informaion

