

# Black Pine Pipa Tremor

- Gravity **16.4 BLG**
- ABV ---
- IBU **52**
- SRM **28.1**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (71.4%)	79 %	6
Grain	Słód wędzony - Buk	1.5 kg (21.4%)	82 %	10
Grain	Strzegom Słód Czekoladowy	0.5 kg (7.1%)	68 %	1000

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	45 min	10 %
Boil	Cascade PL	15 g	10 min	5.2 %
Boil	Chinook PL	25 g	10 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis US-05	Ale	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Herb	Pędy sosny	50 g	Boil	10 min