Amerykańska sosna

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **32**
- SRM **3.9**
- Style **American 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 **3.2 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg *(70%)*	80 %	4
Grain	Słód PSZENICZNY jasny 4,5 EBC Crisp	1 kg *(20%)*	82 %	5
Grain	Słód MONACHIJSKI typ I 16 EBC Crisp	0.5 kg *(10%)*	82 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	13.2 %
Boil	Chinok pl	15 g	30 min	6.6 %
Aroma (end of boil)	Simcoe	15 g	5 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Dry	11 g	---

Extras

Type	Name	Amount	Use for	Time

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Flavor	pędy sosnowe	75 g	Boil	20 min