

Summer ale z szyszkami sosny

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **109**
- SRM **4**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **80 C**, Time **3 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **3 min** at **80C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (76.9%)	82 %	4
Grain	Weyermann - Carapils	0.7 kg (10.8%)	78 %	4
Grain	Płatki owsiane	0.3 kg (4.6%)	60 %	3
Grain	Pszeniczny	0.5 kg (7.7%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	65 g	40 min	10 %
Whirlpool	Mosaic	40 g	60 min	10 %
Whirlpool	Chinook	10 g	60 min	13 %
Whirlpool	Citra	50 g	60 min	12 %
Dry Hop	Cascade PL	50 g	7 day(s)	5.2 %
Dry Hop	Mosaic	30 g	7 day(s)	10 %
Dry Hop	Citra	30 g	7 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Lallemand - LalBrew Verdant IPA	Ale	Dry	11 g	Lallemand
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Extras

Type	Name	Amount	Use for	Time
Flavor	Szyszki i pędy sosny z syropu do wysładzania	500 g	Boil	5 min