

wesALE

- Gravity **14.5 BLG**
- ABV ---
- IBU **31**
- SRM **10.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **25 %**
- Size with trub loss **25 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	0.5 kg (7.8%)	79 %	16
Grain	Strzegom Pilzneński	2 kg (31.3%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (15.6%)	79 %	10
Grain	Strzegom Pale Ale	1 kg (15.6%)	79 %	6
Grain	Aroma CastleMalting	0.5 kg (7.8%)	78 %	100
Grain	Strzegom pszeniczny	0.5 kg (7.8%)	81 %	6
Adjunct	Pszenica niestodowana	0.5 kg (7.8%)	75 %	3
Adjunct	płatki owsiane	0.4 kg (6.3%)	--- %	1

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Summit	10 g	15 min	15.8 %
Aroma (end of boil)	Simcoe	10 g	15 min	13 %
Aroma (end of boil)	Perle	20 g	10 min	7 %
Boil	Bravo	13.5 g	15 min	13.7 %

Aroma (end of boil)	Citra	10 g	10 min	12 %
Whirlpool	Citra	20 g	0 min	12 %
Whirlpool	Equinox	20 g	0 min	13.1 %
Dry Hop	Citra	50 g	5 day(s)	12 %
Dry Hop	Equinox	50 g	5 day(s)	13.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Dry	12 g	Safale

Extras

Type	Name	Amount	Use for	Time
Spice	hibiskus	5 g	Boil	5 min
Spice	kolendra	5 g	Boil	5 min