

apa mocno chmielona

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **78**
- SRM **11.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **20.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.5 kg (64.5%)	80 %	4
Grain	Strzegom Karmel 30	0.88 kg (12.6%)	75 %	30
Grain	Pszoniczny	1 kg (14.3%)	85 %	4
Grain	Strzegom Czekoladowy 1200	0.1 kg (1.4%)	68 %	1202
Grain	Płatki owsiane	0.5 kg (7.2%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	citra	40 g	60 min	13.5 %
Boil	citra	30 g	15 min	13.5 %
Boil	mosaic	30 g	15 min	10.4 %
Boil	mosaic	10 g	5 min	10.4 %
Boil	citra	10 g	5 min	13.5 %
Whirlpool	citra	20 g	0 min	13.5 %
Whirlpool	mosaic	20 g	0 min	10.4 %
Dry Hop	Citra	100 g	7 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-04	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min