

AP-PA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **76**
- SRM **8.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (54.5%)	79 %	6
Grain	Strzegom Karmel 30	0.5 kg (9.1%)	75 %	30
Grain	Weyermann - Carawheat	0.5 kg (9.1%)	77 %	97
Grain	Strzegom pszeniczny	1.5 kg (27.3%)	81 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Amarillo	50 g	20 min	7.5 %
Whirlpool	Citra	50 g	20 min	12 %
Whirlpool	Equinox	50 g	20 min	16.1 %
Whirlpool	Chinook	50 g	20 min	12.8 %
Dry Hop	Amarillo	50 g	5 day(s)	7.5 %
Dry Hop	Citra	50 g	5 day(s)	12 %
Dry Hop	Equinox	50 g	5 day(s)	16.1 %
Dry Hop	Chinook	30 g	5 day(s)	12.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM55 Zielone Wzgórze	Ale	Liquid	900 ml	Fermentum Mobile
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