

WLP066 APA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **43**
- SRM **3.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **8 %**
- Size with trub loss **23.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg (25.3%)	80 %	5
Grain	Oats, Flaked	1 kg (25.3%)	80 %	2
Grain	Pilznieński	0.875 kg (22.2%)	81 %	4
Grain	Vienna Malt	0.57 kg (14.4%)	78 %	8
Grain	Pszeniczny	0.5 kg (12.7%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	20 g	50 min	9.2 %
Aroma (end of boil)	Citra	5 g	10 min	12.8 %
Aroma (end of boil)	Cascade	5 g	10 min	6 %
Aroma (end of boil)	Falconer's Flight	5 g	10 min	10.3 %
Whirlpool	Citra	20 g	20 min	12.8 %
Whirlpool	Cascade	20 g	20 min	6 %
Whirlpool	Falconer's Flight	20 g	20 min	10.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
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WLP066 - London Fog	Ale	Slant	666 ml	White Labs
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Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	8 g	Mash	80 min
Water Agent	Kwas mlekowy 80%	3 g	Mash	80 min