

KassApa2

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **36**
- SRM **10.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **34.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **30.5 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.014 kg (52.6%)	80 %	7
Grain	Weyermann - Carawheat	0.4 kg (5.2%)	77 %	115
Grain	Acid Malt	0.07 kg (0.9%)	58.7 %	6
Grain	Viking melanoidynowy	0.306 kg (4%)	75 %	60
Grain	Strzegom Wiedeński	0.6 kg (7.9%)	79 %	10
Grain	Rice, Flaked	0.24 kg (3.1%)	70 %	2
Grain	Monachijski	1 kg (13.1%)	80 %	16
Grain	Oats, Flaked	0.5 kg (6.6%)	80 %	2
Grain	Wheat, Flaked	0.4 kg (5.2%)	77 %	4
Grain	Strzegom Czekoladowy jasny	0.1 kg (1.3%)	68 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Jarrylo	12 g	45 min	15 %
Boil	Chinook	12 g	45 min	13 %

Boil	Cascade	20 g	45 min	6 %
Aroma (end of boil)	Jarrylo	8 g	5 min	15 %
Aroma (end of boil)	Chinook	8 g	5 min	13 %
Aroma (end of boil)	Cascade	20 g	5 min	6 %
Whirlpool	Cascade	20 g	0 min	6 %
Dry Hop	Jarrylo	10 g	5 day(s)	15 %
Dry Hop	Cascade	20 g	5 day(s)	6 %
Dry Hop	Chinook	10 g	5 day(s)	13 %
Dry Hop	Cascade	20 g	2 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis