

apa

- Gravity **12.2 BLG**
- ABV ---
- IBU **35**
- SRM **5.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Karmel 30	0.3 kg (6.1%)	75 %	30
Grain	Strzegom Pilzneński	4.3 kg (87.8%)	80 %	4
Grain	Strzegom pszeniczny	0.3 kg (6.1%)	81 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10.5 %
Aroma (end of boil)	Cascade	15 g	0 min	6.8 %
Aroma (end of boil)	Ahtanum	15 g	0 min	3.2 %
Whirlpool	Mosaic	15 g	30 min	11.7 %
Whirlpool	Cascade	15 g	30 min	6.8 %
Dry Hop	Ahtanum	20 g	7 day(s)	3.2 %
Dry Hop	Mosaic	20 g	7 day(s)	11.7 %
Dry Hop	Cascade	20 g	7 day(s)	6.8 %
Aroma (end of boil)	Mosaic	15 g	0 min	11.7 %
Whirlpool	Ahtanum	15 g	30 min	3.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Dry	10 g	Safale