

APA (experimental mix)

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **36**
- SRM **6.6**
- 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 **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **14.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	1 kg (30.8%)	85 %	4
Grain	Pilzneński	1 kg (30.8%)	81 %	4
Grain	Monachijski	1 kg (30.8%)	80 %	16
Grain	Strzegom Karmel 150	0.25 kg (7.7%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mandarina Bavaria	10 g	60 min	10 %
Boil	Mandarina Bavaria	20 g	15 min	10 %
Aroma (end of boil)	Mandarina Bavaria	20 g	2 min	10 %
Whirlpool	Cascade PL	50 g	20 min	5.2 %
Dry Hop	Cascade PL	50 g	4 day(s)	5.2 %
Dry Hop	Izabela	100 g	4 day(s)	5.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	250 ml	Fermentis