

Brown APA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **50**
- SRM **5.5**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 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 **63 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale	4 kg (81.6%)	83 %	5
Grain	strzegom Karmel 30	0.9 kg (18.4%)	85 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Vic Secret	10 g	60 min	16.3 %
Boil	Topaz	10 g	60 min	15 %
Boil	Vic Secret	10 g	10 min	16.3 %
Boil	Topaz	10 g	10 min	15 %
Boil	Vic Secret	10 g	5 min	16.3 %
Boil	Topaz	10 g	5 min	15 %
Boil	Vic Secret	10 g	0 min	16.3 %
Boil	Topaz	10 g	0 min	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11.5 g	Fermentis