

Capitan America

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **29**
- SRM **6.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **3 %**
- Size with trub loss **22.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **40 C**, Time **30 min**
- Temp **63 C**, Time **40 min**
- Temp **73 C**, Time **20 min**
- Temp **77 C**, Time **15 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **30 min** at **40C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **73C**
- Keep mash **15 min** at **77C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (89.3%)	79 %	6
Grain	Strzegom Monachijski typ II	0.5 kg (8.9%)	79 %	22
Grain	Weyermann - Carawheat	0.1 kg (1.8%)	77 %	125

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	14 g	60 min	9.4 %
Boil	Cascade	14 g	30 min	7.1 %
Boil	Centennial	7 g	30 min	9.4 %
Aroma (end of boil)	Cascade	7 g	15 min	7.1 %
Aroma (end of boil)	Cascade	6 g	0 min	7.1 %
Dry Hop	Cascade	23 g	15 day(s)	7.1 %
Dry Hop	Centennial	29 g	15 day(s)	9.4 %

Yeasts

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