

Californication

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **28**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **48.3 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **33.8 liter(s)**
- Total mash volume **41.3 liter(s)**

Steps

- Temp **50 C**, Time **5 min**
- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **33.8 liter(s)** of strike water to **53.3C**
- Add grains
- Keep mash **5 min** at **50C**
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **48.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7 kg (93.3%)	80 %	5
Grain	Strzegom Bursztynowy	0.5 kg (6.7%)	70 %	49

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Aroma (end of boil)	Citra	25 g	10 min	12 %
Aroma (end of boil)	Citra	25 g	5 min	12 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	50 g	0 min	15.5 %
Aroma (end of boil)	Citra	50 g	0 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	fermentis