

SAN FRANCISCO

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **17**
- SRM **13**
- Style **California Common Beer**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **3 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **28 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **19.1 liter(s)**
- Total mash volume **25.1 liter(s)**

Steps

- Temp **68 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **19.1 liter(s)** of strike water to **75.5C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **28 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale malt	5 kg (83.6%)	80 %	6
Grain	Cara-Pils/Dextrine	0.5 kg (8.4%)	75 %	5
Grain	Caramel/Crystal Malt - 300	0.48 kg (8%)	71 %	300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northern Brewer	12 g	60 min	9 %
Boil	Northern Brewer	12 g	15 min	9 %
Aroma (end of boil)	Centennial	5 g	2 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	40 ml	White Labs