

# Sierra Nevada Pale Ale

- Gravity **13.3 BLG**
- ABV **5.51 %**
- IBU **39.6**
- SRM **9.9**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **0 %**
- Size with trub loss **25 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **34.96 liter(s)**

## Mash information

- Mash efficiency **59 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.45 liter(s)**
- Total mash volume **28.6 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **21.45 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **20.7 liter(s)** of **76C** water or to achieve **34.96 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	6.7 kg	82.8 %	7
Grain	Caramunich III	0.45 kg	80.07 %	188

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	5 g	60 min	12 %
Boil	Perle	5 g	60 min	7 %
Boil	Cascade	75 g	30 min	5.5 %
Boil	Cascade	75 g	0 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
California Ale	Ale	Liquid	1000 ml	White Labs

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Calcium Chloride	4 g	Mash	0 min
Water Agent	Gypsum (Calcium Sulfate)	5 g	Mash	0 min
Water Agent	Lactic Acid	4 g	Mash	0 min

Other	Yeast Nutrients	1 g	Boil	15 min
Fining	Whirlfloc	500 g	Boil	5 min