

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 |