

2. American Cascade Pale Ale 13 BLG

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **62**
- SRM **6.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **23.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.3 liter(s)**

Steps

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

Mash step by step

- Heat up **15 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (46.5%) | 80 % | 5 |
| Grain | Strzegom Wiedeński | 1 kg (23.3%) | 79 % | 10 |
| Grain | Monachijski | 1 kg (23.3%) | 80 % | 16 |
| Grain | Caramel/Crystal Malt - 20L | 0.3 kg (7%) | 75 % | 39 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Cascade | 40 g | 60 min | 7.7 % |
| Boil | Cascade | 10 g | 30 min | 7.7 % |
| Aroma (end of boil) | Cascade | 10 g | 15 min | 7.7 % |
| Aroma (end of boil) | Cascade | 25 g | 10 min | 7.7 % |
| Aroma (end of boil) | Cascade | 10 g | 5 min | 7.7 % |
| Whirlpool | Cascade | 10 g | 1 min | 7.7 % |
| Dry Hop | Cascade | 25 g | 7 day(s) | 7.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 10 g | Fermentis |