

BIAB Ella single hop

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **42**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **10.4 liter(s)**
- Trub loss **14 %**
- Size with trub loss **13.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18.3 liter(s)**

Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **16.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Płatki owsiane | 0.4 kg (10.3%) | 60 % | 3 |
| Grain | Viking Pale Ale malt | 3 kg (76.9%) | 80 % | 5 |
| Grain | Viking Cara Body Malt | 0.5 kg (12.8%) | 80 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil | Ella (AUS) | 20 g | 30 min | 14.6 % |
| Whirlpool | Ella (AUS) | 30 g | 5 min | 14.6 % |
| Dry Hop | Ella (AUS) | 50 g | 3 day(s) | 14.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|------|-------|--------|------------|
| Lallemand - LalBrew American East Coast - New England | Ale | Slant | 150 ml | Lallemand |