

#33 DDH APA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **23**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.79 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **24.7 liter(s)**

Steps

- Temp **66 C**, Time **70 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **72.1C**
- Add grains
- Keep mash **70 min** at **66C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.1 kg (79.6%) | 80 % | 5 |
| Grain | Płatki owsiane | 0.5 kg (9.7%) | 85 % | 3 |
| Grain | Płatki pszeniczne | 0.2 kg (3.9%) | 85 % | 3 |
| Grain | Weyermann - Carapils | 0.15 kg (2.9%) | 78 % | 4 |
| Grain | Pszeniczny | 0.2 kg (3.9%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Citra | 1 g | 60 min | 13.4 % |
| Boil | Centennial | 5 g | 15 min | 10.5 % |
| Aroma (end of boil) | Simcoe | 10 g | 10 min | 12 % |
| Aroma (end of boil) | Centennial | 15 g | 10 min | 10.5 % |
| Aroma (end of boil) | Citra | 20 g | 5 min | 13.4 % |
| Aroma (end of boil) | Mosaic | 10 g | 5 min | 10 % |