

## #33 DDH APA

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- 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 %