

# Klon Atak Chmielu

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **40**
- SRM **9.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

## Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **77C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt   | 5 kg (76.9%)  | 85 %  | 7   |
| Grain | Weyermann - Carapils        | 0.5 kg (7.7%) | 78 %  | 4   |
| Grain | Weyermann - Carared         | 0.5 kg (7.7%) | 75 %  | 45  |
| Grain | Weyermann - Melanoiden Malt | 0.5 kg (7.7%) | 81 %  | 53  |

## Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | Amarillo | 10 g   | 30 min   | 9.5 %      |
| Boil      | Simcoe   | 10 g   | 30 min   | 13.2 %     |
| Whirlpool | Simcoe   | 20 g   | 0 min    | 13.2 %     |
| Whirlpool | Citra    | 20 g   | 0 min    | 12 %       |
| Whirlpool | Cascade  | 10 g   | 0 min    | 6 %        |
| Boil      | Simcoe   | 20 g   | 45 min   | 12 %       |
| Whirlpool | Amarillo | 10 g   | 0 min    | 9.5 %      |
| Dry Hop   | Simcoe   | 40 g   | 2 day(s) | 13.2 %     |
| Dry Hop   | Cascade  | 20 g   | 2 day(s) | 6 %        |

|         |          |      |          |       |
|---------|----------|------|----------|-------|
| Dry Hop | Amarillo | 10 g | 2 day(s) | 9.5 % |
| Dry Hop | Citra    | 10 g | 2 day(s) | 12 %  |

### Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 23 g   | Fermentis  |