

## #17 COLD HOPS

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **44**
- SRM **3.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**

### Mash step by step

- Heat up **19.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

| Type  | Name              | Amount        | Yield | EBC |
|-------|-------------------|---------------|-------|-----|
| Grain | Pilzneński        | 5 kg (90.9%)  | 81 %  | 4   |
| Grain | Płatki pszeniczne | 0.5 kg (9.1%) | 60 %  | 3   |

### Hops

| Use for             | Name            | Amount | Time     | Alpha acid |
|---------------------|-----------------|--------|----------|------------|
| Boil                | Hallertau Blanc | 30 g   | 40 min   | 9.9 %      |
| Aroma (end of boil) | Cascade PL      | 45 g   | 15 min   | 7.8 %      |
| Dry Hop             | Strata          | 100 g  | 4 day(s) | 14.5 %     |
| Dry Hop             | Citra           | 100 g  | 4 day(s) | 12 %       |

### Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Us-05 | Ale  | Dry  | 11.5 g | ---        |

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 5 g    | Boil    | 10 min |

### Notes

- chmienie w woreczkach  
*Feb 4, 2025, 3:30 PM*