

# Cold IPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **100**
- SRM **3.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

## Steps

- Temp **55 C**, Time **5 min**
- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński  | 5 kg (75.8%)   | 80 %  | 4   |
| Grain | Weyermann - Carapils | 0.3 kg (4.5%)  | 78 %  | 4   |
| Grain | Rice, Flaked         | 1.3 kg (19.7%) | 70 %  | 2   |

## Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 45 g   | 60 min   | 15.5 %     |
| Aroma (end of boil) | Citra                  | 30 g   | 5 min    | 12 %       |
| Whirlpool           | Citra                  | 70 g   | 15 min   | 12 %       |
| Whirlpool           | Amarillo               | 50 g   | 15 min   | 9.5 %      |
| Dry Hop             | Amarillo               | 50 g   | 3 day(s) | 9.5 %      |
| Dry Hop             | Nelson Sauvín          | 100 g  | 3 day(s) | 11 %       |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                            |       |        |        |            |
|----------------------------|-------|--------|--------|------------|
| Saflager W 34/70           | Lager | Slant  | 250 ml | Fermentis  |
| WLP518 - Opshaug Kveik Ale | Ale   | Liquid | 50 ml  | White Labs |

### Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Water Agent | Gips Piwowarski | 11 g   | Mash    | 60 min |
| Water Agent | Epsom           | 3 g    | Mash    | 60 min |
| Water Agent | NaCl            | 1 g    | Mash    | 60 min |
| Water Agent | CaCl            | 2 g    | Mash    | 60 min |
| Fining      | whirfloock      | 4 g    | Boil    | 10 min |
| Water Agent | Kwas mlekowy    | 2 g    | Mash    | 5 min  |

### Notes

- Kwas mlekowy do korekty pH zacieru (5.3) i korekty pH brzeczki nastawnej (5.1). Na koniec gotowania cała tabletką whirfloocku  
 Profil wody (chmielowy): Ca-91.1/Mg-11.2/Na-13.6/Cl-51/SO4-195.2/HCO3-41  
 Fermentacja W 34/70: Start w 9°C, 3 dni po rozpoczęciu fermentacji podnoszenie temperatury o 1°C dziennie, aż do 15°C. Przerwa diacetylowa około 7 dni w 15°C  
 Fermentacja Opshaug: Zadanie drożdży w około 20°C, Feremncja w temp pokojowej.  
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