

## Polish Pale Ale Zibi vs 2-20

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **36**
- SRM **3.6**
- Style **American Pale Ale**

### 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 **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **55 C**, Time **5 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **45 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt  | 4.5 kg (81.8%) | 82 %  | 4   |
| Grain | Weyermann - Carapils | 1 kg (18.2%)   | 78 %  | 4   |

### Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| First Wort          | Marynka  | 30 g   | 60 min   | 10 %       |
| Aroma (end of boil) | Puławski | 100 g  | 1 min    | 8.9 %      |
| Dry Hop             | Zibi     | 30 g   | 7 day(s) | 5 %        |
| Dry Hop             | 2-20     | 30 g   | 7 day(s) | 5 %        |
| Dry Hop             | Zibi     | 70 g   | 3 day(s) | 5 %        |
| Dry Hop             | 2-20     | 70 g   | 3 day(s) | 5 %        |

### Yeasts

| Name          | Type | Form  | Amount | Laboratory |
|---------------|------|-------|--------|------------|
| Lutra OYL-071 | Ale  | Slant | 100 ml | Omega      |

## Extras

| Type        | Name             | Amount | Use for | Time   |
|-------------|------------------|--------|---------|--------|
| Water Agent | Kwas mlekowy 80% | 0 g    | Mash    | 60 min |
| Water Agent | Gips piwoarski   | 10 g   | Mash    | 60 min |
| Water Agent | Chlorek Wapnia   | 3 g    | Mash    | 60 min |

## Notes

- Zacieranie: Korekta pH zacieru 5.3-5.4  
Profil wody chmielowy: Ca-97.4/Mg-4/Na-4/Cl-53.5/SO4-158.2/HCO3-41  
Po gotowaniu korekta ph 5.1  
Fermentacja: brzeczka podzielona na 2 fermentory. Do jednego na początek fermentacji 30g Zibi, do drugiego 30g 2-20. Fermentacja w temperaturze pokojowej.  
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