

## ZI-1

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- Gravity **10.2 BLG**
- ABV ---
- IBU **10**
- SRM **3.2**
- Style **Cream 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 **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **53 C**, Time **10 min**
- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **60 min** at **69C**
- Keep mash **2 min** at **78C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Pale Ale IREKS       | 3 kg (75%)   | 81 %  | 5   |
| Grain | Weyermann - Carapils | 0.8 kg (20%) | 78 %  | 4   |
| Grain | Żytni Weyermann      | 0.2 kg (5%)  | 85 %  | 8   |

### Hops

| Use for   | Name | Amount | Time     | Alpha acid |
|-----------|------|--------|----------|------------|
| Boil      | Zi-1 | 10 g   | 15 min   | 7.9 %      |
| Whirlpool | Zi-1 | 30 g   | 15 min   | 7.9 %      |
| Dry Hop   | Zi-1 | 160 g  | 3 day(s) | 7.9 %      |

### Yeasts

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