

## ZD Clone

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **60**
- SRM **6.1**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **14.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                              | Amount         | Yield | EBC |
|-------|-----------------------------------|----------------|-------|-----|
| Grain | Weyermann - Bohemian Pilsner Malt | 4 kg (81.6%)   | 81 %  | 4   |
| Grain | Strzegom Wiedeński                | 0.4 kg (8.2%)  | 79 %  | 10  |
| Grain | Weyermann - Carapils              | 0.15 kg (3.1%) | 78 %  | 4   |
| Grain | Cara Gold Castlemalting           | 0.2 kg (4.1%)  | 78 %  | 120 |
| Grain | Weyermann - Melanoiden Malt       | 0.15 kg (3.1%) | 81 %  | 53  |

### Hops

| Use for    | Name  | Amount | Time     | Alpha acid |
|------------|-------|--------|----------|------------|
| First Wort | Citra | 20 g   | 80 min   | 12 %       |
| Boil       | Citra | 20 g   | 15 min   | 12 %       |
| Boil       | Citra | 20 g   | 10 min   | 12 %       |
| Boil       | Citra | 20 g   | 5 min    | 12 %       |
| Whirlpool  | Citra | 20 g   | 20 min   | 12 %       |
| Dry Hop    | Citra | 50 g   | 5 day(s) | 12 %       |

### Yeasts

| Name                 | Type | Form  | Amount | Laboratory       |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Slant | 150 ml | Fermentum Mobile |