

## #13 Imperial IPA 101 IBU

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **101**
- SRM **10.1**
- Style **Imperial IPA**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **67 C**, Time **50 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

| Type           | Name                      | Amount         | Yield | EBC |
|----------------|---------------------------|----------------|-------|-----|
| Grain          | Weyermann - Pale Ale Malt | 3 kg (57.7%)   | 85 %  | 7   |
| Liquid Extract | Bruntal Pale Ale          | 1.7 kg (32.7%) | 80 %  | 35  |
| Grain          | Weyermann - Carapils      | 0.5 kg (9.6%)  | 78 %  | 4   |

### Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 40 g   | 30 min | 14.6 %     |
| Boil    | Amarillo               | 15 g   | 20 min | 7.1 %      |
| Boil    | Citra                  | 10 g   | 20 min | 13.8 %     |
| Boil    | Citra                  | 20 g   | 15 min | 13.8 %     |
| Boil    | Citra                  | 30 g   | 10 min | 13.8 %     |

### Yeasts

| Name                    | Type | Form  | Amount | Laboratory |
|-------------------------|------|-------|--------|------------|
| US-05 Gęstwa dość gesta | Ale  | Slant | 200 ml | Fermentis  |