

## IPA FM11 & WY1098

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **62**
- SRM **13**
- Style **English IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **35.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **31.2 liter(s)**
- Total mash volume **40.1 liter(s)**

### Steps

- Temp **62 C**, Time **66 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **31.2 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **66 min** at **62C**
- Keep mash **1 min** at **78C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **35.1 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Pilzneński             | 6.7 kg (75.3%) | 81 %  | 5   |
| Grain | Monachijski            | 1.2 kg (13.5%) | 80 %  | 16  |
| Grain | Carmel Aromatic Viking | 1 kg (11.2%)   | 80 %  | 180 |

### Hops

| Use for             | Name               | Amount | Time     | Alpha acid |
|---------------------|--------------------|--------|----------|------------|
| Boil                | Pilgrim UK         | 80 g   | 60 min   | 11.1 %     |
| Boil                | Pilgrim UK         | 20 g   | 5 min    | 11.1 %     |
| Aroma (end of boil) | East Kent Goldings | 25 g   | 1 min    | 5.1 %      |
| Dry Hop             | East Kent Goldings | 100 g  | 5 day(s) | 5.1 %      |

### Yeasts

| Name                     | Type | Form  | Amount | Laboratory       |
|--------------------------|------|-------|--------|------------------|
| FM11 Wichrowe Wzgórza    | Ale  | Slant | 150 ml | Fermentum Mobile |
| Wyeast - London Ale 1098 | Ale  | Slant | 150 ml | Wyeast Labs      |

### Extras

| Type        | Name             | Amount | Use for | Time   |
|-------------|------------------|--------|---------|--------|
| Water Agent | Gips piwowarski  | 40 g   | Boil    | 60 min |
| Water Agent | Chlorek wapnia   | 4 g    | Boil    | 60 min |
| Water Agent | Soda oczyszczona | 10 g   | Boil    | 60 min |
| Other       | Pożywka + cynk   | 2 g    | Boil    | 60 min |
| Fining      | WhirlflocT       | 1 g    | Boil    | 15 min |

## Notes

- Woda z biedry 2.  
Burtonizacja wody do SO-/Cl- ratio: 9+ (ok 8,5)  
*Jan 5, 2020, 4:47 PM*