

## #26 Enigma Pale Ale (na rozruch fiolki)

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **33**
- SRM **4.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **13.2 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **18.6 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13 liter(s)**

### Steps

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

### Mash step by step

- Heat up **9.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **18.6 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.6 kg (80%)   | 80 %  | 5   |
| Grain | Pszeniczny           | 0.4 kg (12.3%) | 85 %  | 4   |
| Grain | Pszeniczny ciemny    | 0.1 kg (3.1%)  | 85 %  | 16  |
| Grain | Weyermann - Carapils | 0.15 kg (4.6%) | 78 %  | 4   |

### Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 5 g    | 15 min   | 15.5 %     |
| Aroma (end of boil) | Enigma (AUS)           | 15 g   | 15 min   | 16.5 %     |
| Aroma (end of boil) | Enigma (AUS)           | 20 g   | 3 min    | 16.5 %     |
| Dry Hop             | Enigma (AUS)           | 15 g   | 5 day(s) | 16.5 %     |

### Yeasts

| Name                 | Type | Form   | Amount | Laboratory       |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 50 ml  | Fermentum Mobile |

### Extras

| Type        | Name | Amount | Use for | Time   |
|-------------|------|--------|---------|--------|
| Water Agent | Gips | 3 g    | Boil    | 20 min |

## Notes

- Do 8 litrów dodatek puszek mango, 6 litrów butelkowane normalnie.  
5.4% abv 80% odfermentowania  
Trochę za dużo na zimno  
*Dec 2, 2018, 4:41 PM*