

## W zielone gramy\_IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **61**
- SRM **4.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **17.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.5 liter(s)**

### Mash information

- Mash efficiency **67.5 %**
- Liquor-to-grist ratio **3.57 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **28.1 liter(s)**

### Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **22 liter(s)** of strike water to **72.4C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (48.8%)   | 80 %  | 5   |
| Grain | Pilzneński           | 2 kg (32.5%)   | 81 %  | 4   |
| Grain | Płatki pszeniczne    | 1 kg (16.3%)   | 85 %  | 3   |
| Grain | Słód zakwaszający    | 0.15 kg (2.4%) | 80 %  | 5   |

### Hops

| Use for             | Name   | Amount | Time     | Alpha acid |
|---------------------|--------|--------|----------|------------|
| Boil                | lunga  | 10 g   | 60 min   | 9.2 %      |
| Boil                | Mosaic | 30 g   | 35 min   | 11 %       |
| Aroma (end of boil) | Citra  | 30 g   | 10 min   | 12.8 %     |
| Whirlpool           | Mosaic | 30 g   | 6 min    | 11 %       |
| Whirlpool           | Citra  | 15 g   | 6 min    | 12.8 %     |
| Dry Hop             | Galaxy | 30 g   | 2 day(s) | 13.6 %     |
| Dry Hop             | Sabro  | 30 g   | 2 day(s) | 10 %       |
| Dry Hop             | Mosaic | 30 g   | 2 day(s) | 11 %       |
| Dry Hop             | Citra  | 45 g   | 2 day(s) | 12.8 %     |

### Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 11 g   | ---        |

## Notes

- warzenie: 21.01  
butelkowanie: 09.02  
blg końcowe: 4,8  
ilość cukru do refermentacji: 60g  
vol.: 5,7%  
*Feb 10, 2021, 12:25 AM*