

## Grubo albo wcale

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **88**
- SRM **6**
- Style **Imperial IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.9 liter(s)**

### Steps

- Temp **67 C**, Time **75 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **21.3 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name               | Amount        | Yield | EBC |
|-------|--------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale  | 6 kg (75.9%)  | 79 %  | 6   |
| Sugar | Cukier             | 0.3 kg (3.8%) | 100 % | 4   |
| Grain | Strzegom Wiedeński | 1 kg (12.7%)  | 79 %  | 10  |
| Grain | Płatki owsiane     | 0.6 kg (7.6%) | 85 %  | 3   |

### Hops

| Use for   | Name                   | Amount | Time     | Alpha acid |
|-----------|------------------------|--------|----------|------------|
| Boil      | Columbus/Tomahawk/Zeus | 30 g   | 60 min   | 15.5 %     |
| Boil      | Simcoe                 | 25 g   | 30 min   | 13.2 %     |
| Boil      | Centennial             | 25 g   | 0 min    | 10.5 %     |
| Whirlpool | Simcoe                 | 45 g   | 25 min   | 13.2 %     |
| Whirlpool | Centennial             | 45 g   | 25 min   | 10.5 %     |
| Dry Hop   | Columbus/Tomahawk/Zeus | 50 g   | 4 day(s) | 15.5 %     |
| Dry Hop   | Simcoe                 | 30 g   | 4 day(s) | 13.2 %     |
| Dry Hop   | Centennial             | 30 g   | 4 day(s) | 10.5 %     |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                      |     |        |        |                  |
|----------------------|-----|--------|--------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 250 ml | Fermentum Mobile |
|----------------------|-----|--------|--------|------------------|

### Extras

| Type   | Name          | Amount | Use for   | Time     |
|--------|---------------|--------|-----------|----------|
| Flavor | płatki dębowe | 60 g   | Secondary | 7 day(s) |