

## ?Sosnowe Pale Ale?

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **77**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **55 C**, Time **5 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Pilzneński                 | 5 kg (83.3%)  | 81 %  | 4   |
| Grain | Weyermann pszeniczny jasny | 0.5 kg (8.3%) | 80 %  | 6   |
| Grain | Strzegom Karmel 30         | 0.5 kg (8.3%) | 75 %  | 30  |

### Hops

| Use for | Name   | Amount | Time     | Alpha acid |
|---------|--------|--------|----------|------------|
| Boil    | lunga  | 40 g   | 60 min   | 11 %       |
| Boil    | lunga  | 50 g   | 15 min   | 11 %       |
| Boil    | Simcoe | 40 g   | 5 min    | 13.2 %     |
| Dry Hop | Simcoe | 40 g   | 7 day(s) | 13.2 %     |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

### Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |                |     |      |       |
|--------|----------------|-----|------|-------|
| Fining | mech irlandzki | 5 g | Boil | 5 min |
|--------|----------------|-----|------|-------|

## Notes

- zakup surowców: 64zł  
+ drożdże: 9.5zł  
+ mech: 15zł  
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razem: 81,5zł.  
*Feb 9, 2018, 10:17 AM*