

## #18 Pawlos, session Pale Ale

- Gravity **10.5 BLG**
- ABV ---
- IBU **28**
- SRM **11.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.9 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **13.4 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński   | 0.7 kg (15.6%) | 79 %  | 10  |
| Grain | Strzegom Pilzneński  | 2.5 kg (55.8%) | 80 %  | 4   |
| Grain | Strzegom Karmel 150  | 0.5 kg (11.2%) | 75 %  | 150 |
| Grain | Pszeniczny           | 0.5 kg (11.2%) | 85 %  | 4   |
| Grain | Weyermann - Carapils | 0.28 kg (6.3%) | 78 %  | 4   |

### Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 15 g   | 45 min   | 15.5 %     |
| Dry Hop             | Cascade                | 35 g   | 4 day(s) | 6 %        |
| Dry Hop             | Citra                  | 65 g   | 4 day(s) | 12 %       |
| Aroma (end of boil) | Simcoe                 | 90 g   | 0 min    | 13 %       |
| Boil                | simcoe                 | 10 g   | 10 min   | 13 %       |

### Yeasts

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

|             |     |     |      |        |
|-------------|-----|-----|------|--------|
| Safale S-04 | Ale | Dry | 11 g | Safale |
|-------------|-----|-----|------|--------|

### Extras

| Type        | Name | Amount | Use for | Time   |
|-------------|------|--------|---------|--------|
| Water Agent | gips | 5 g    | Mash    | 60 min |

### Notes

- 90 simcoe na chmielenie whirlpoolowe - zadane po wyłączeniu palnika, przetrzymanie w 70c na 60min  
*May 26, 2016, 10:33 AM*