

Ostatnie Uderzenie #2

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **40**
- SRM **9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.3 liter(s)**

Steps

- Temp **69 C**, Time **70 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **8.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **69C**
- Keep mash **15 min** at **78C**
- Sparge using **23.2 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|--------------------------------|----------------|--------|-----|
| Grain | Strzegom Wiedeński | 1 kg (21.3%) | 79 % | 10 |
| Grain | Pszeniczny | 0.5 kg (10.6%) | 85 % | 4 |
| Grain | Carared | 0.5 kg (10.6%) | 75 % | 39 |
| Grain | Pilzneński | 0.5 kg (10.6%) | 81 % | 4 |
| Liquid Extract | Gozdawa ekstrakt słodowy jasny | 1.7 kg (36.2%) | 80 % | 45 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (10.6%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil | Opal | 10 g | 60 min | 8.5 % |
| Boil | Hersbrucker | 15 g | 30 min | 3 % |
| Boil | Perle | 15 g | 30 min | 7 % |
| Aroma (end of boil) | Cascade | 30 g | 10 min | 6 % |
| Aroma (end of boil) | Amarillo | 20 g | 10 min | 9.5 % |
| Aroma (end of boil) | Mosaic | 20 g | 5 min | 10 % |
| Aroma (end of boil) | Simcoe | 20 g | 5 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Slant | 100 ml | Fermentis |