

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **34**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

Steps

- Temp **72 C**, Time **60 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **19.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|--------------|-------|-----|
| Grain | Strzegom Pale Ale | 1.5 kg (60%) | 79 % | 6 |
| Grain | Żytni | 1 kg (40%) | 85 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|----------|------------|
| Boil | Magnum | 8 g | 60 min | 13.5 % |
| Boil | Galaxy | 10 g | 20 min | 15 % |
| Aroma (end of boil) | Galaxy | 10 g | 0 min | 15 % |
| Dry Hop | Galaxy | 20 g | 7 day(s) | 15 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|------|--------|------------|
| sawbrew s -33 | Ale | Dry | 7 g | --- |