

hop Session

- Gravity **14.3 BLG**
- ABV ---
- IBU **111**
- SRM **10.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **68 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **24 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale | 4 kg (75.5%) | 79 % | 6 |
| Grain | Pilzneński | 1 kg (18.9%) | 81 % | 4 |
| Grain | Strzegom Karmel 150 | 0.3 kg (5.7%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 13.5 % |
| Boil | Citra | 30 g | 60 min | 12 % |
| Aroma (end of boil) | Simcoe | 20 g | 30 min | 13.2 % |
| Aroma (end of boil) | Citra | 30 g | 10 min | 12 % |
| Aroma (end of boil) | Mosaic | 15 g | 15 min | 10 % |