

Session IPA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **71**
- SRM **4.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **70 min**
- Evaporation rate **20 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **8.9 liter(s)**
- Total mash volume **11.5 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **8.9 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale | 2.5 kg (95.2%) | 79 % | 6 |
| Grain | Carahell | 0.125 kg (4.8%) | 77 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 15 g | 60 min | 16.8 % |
| Boil | Centennial | 10 g | 15 min | 9.7 % |
| Boil | Simcoe | 10 g | 15 min | 13.2 % |
| Aroma (end of boil) | Centennial | 10 g | 0 min | 9.7 % |
| Aroma (end of boil) | Simcoe | 10 g | 0 min | 13.2 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 5 g | 0 min | 16.8 % |
| Dry Hop | Centennial | 30 g | 5 day(s) | 10.5 % |
| Dry Hop | Simcoe | 30 g | 5 day(s) | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 5 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 2 g | Mash | 60 min |