

USA BITTER

- Gravity **11.2 BLG**
- ABV ---
- IBU **32**
- SRM **9**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4 kg (85.1%) | 79 % | 6 |
| Grain | Strzegom Karmel 150 | 0.2 kg (4.3%) | 75 % | 150 |
| Grain | Strzegom Monachijski typ II | 0.5 kg (10.6%) | 79 % | 22 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Chinook | 15 g | 60 min | 13 % |
| Boil | Cascade | 15 g | 20 min | 6 % |
| Boil | Chinook | 10 g | 5 min | 13 % |
| Boil | Cascade | 10 g | 5 min | 6 % |
| Dry Hop | Cascade | 25 g | 5 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 250 ml | Safale |