

as

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **79**
- SRM **27.5**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 3.85 kg (67%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ I | 1.2 kg (20.9%) | 79 % | 16 |
| Grain | Strzegom Karmel 150 | 0.3 kg (5.2%) | 75 % | 150 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.5%) | 68 % | 1200 |
| Grain | Strzegom pszenica prażona | 0.2 kg (3.5%) | 70 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 40 g | 60 min | 15.7 % |
| Boil | Columbus/Tomahawk/Zeus | 10 g | 20 min | 15.7 % |
| Boil | Cascade | 50 g | 10 min | 6 % |
| Dry Hop | Mosaic | 50 g | 5 day(s) | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |