

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