

Toporek3

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **55**
- SRM **5.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **18.1 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **13.6 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2 kg (44.2%)	79 %	6
Grain	Strzegom Pilzneński	2 kg (44.2%)	80 %	4
Grain	Strzegom Karmel 30	0.32 kg (7.1%)	75 %	30
Grain	Strzegom Monachijski typ II	0.2 kg (4.4%)	79 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	10 g	60 min	5.2 %
Boil	Cascade PL	10 g	15 min	5.2 %
Boil	Columbus/Tomahawk/Zeus	10 g	10 min	15.5 %
Boil	Mosaic	10 g	15 min	10 %
Whirlpool	Cascade	30 g	30 min	6 %
Whirlpool	Columbus/Tomahawk/Zeus	10 g	30 min	15.5 %
Whirlpool	Mosaic	30 g	30 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Liquid	50 ml	FM