

# American Stout z resztek z poprzedniego sezonu

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **72**
- SRM **36.7**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **7.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **8.9 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.9 liter(s)**
- Total mash volume **10.6 liter(s)**

## Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **7.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **3.7 liter(s)** of **76C** water or to achieve **8.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1 kg (37.7%)	81 %	4
Grain	Monachijski	0.7 kg (26.4%)	80 %	16
Grain	Pszeniczny	0.35 kg (13.2%)	85 %	4
Grain	Jęczmień palony	0.25 kg (9.4%)	55 %	985
Grain	Płatki owsiane	0.15 kg (5.7%)	85 %	3
Grain	Żytni	0.15 kg (5.7%)	85 %	8
Grain	Strzegom Karmel 150	0.05 kg (1.9%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	5 g	60 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	5 g	20 min	15.5 %
Boil	Citra	5 g	20 min	12 %
Boil	Citra	10 g	5 min	12 %
Boil	Columbus/Tomahawk/Zeus	10 g	5 min	15.5 %
Boil	Simcoe	10 g	5 min	13.2 %

Boil	Amarillo	10 g	5 min	9.5 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	8.75 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	4.38 g	Mash	0 min