

# Czekoladowy USA Stout

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **31**
- SRM **27.3**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **29.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **32.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **22.3 liter(s)**
- Total mash volume **29.2 liter(s)**

## Steps

- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **22.3 liter(s)** of strike water to **74.3C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **32.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (28.7%)	80 %	5
Grain	BESTMALZ - Best Pilsen	2 kg (28.7%)	80.5 %	4
Grain	Strzegom Monachijski typ II	1 kg (14.4%)	79 %	22
Grain	Strzegom Pszeniczny	0.3 kg (4.3%)	81 %	6
Grain	Strzegom Karmel 600	0.13 kg (1.9%)	68 %	601
Grain	Fawcett - Pale Chocolate	0.4 kg (5.7%)	71 %	600
Grain	Strzegom Czekoladowy jasny	0.53 kg (7.6%)	68 %	400
Grain	Jęczmień palony	0.1 kg (1.4%)	55 %	985
Grain	Płatki owsiane	0.5 kg (7.2%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	7.1 %
Boil	Amarillo	15 g	5 min	7.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	Kakao	125 g	Secondary	7 day(s)
Flavor	Płatki dębowe macerowane whisky	25 g	Secondary	7 day(s)