

# Czarny Piątek

- Gravity **19.9 BLG**
- ABV ---
- IBU **49**
- SRM **40**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **15 %**
- Size with trub loss **23 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **27 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **50 C**, Time **1 min**
- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **50 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **56.8C**
- Add grains
- Keep mash **1 min** at **50C**
- Keep mash **5 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **50 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **27 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (49.1%)	79 %	6
Grain	Strzegom Monachijski typ I	1.39 kg (13.6%)	79 %	16
Grain	Caramunich Malt	1 kg (9.8%)	71.7 %	110
Grain	Strzegom Monachijski typ II	1 kg (9.8%)	79 %	22
Grain	Caraaroma	0.75 kg (7.4%)	78 %	400
Grain	Carafa III	0.25 kg (2.5%)	70 %	1034
Adjunct	płatki jęczmienne	0.8 kg (7.9%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	10 %
Boil	Lublin (Lubelski)	40 g	20 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
saflager s-23	Lager	Slant	200 ml	Fermentis

## Notes

- Sól Carafa III zostanie wrzucony na ostatnie 10 min.  
Będziemy gotować 70 min.  
Drożdże zostaną zadane z wcześniejszego piwa Lagera, które właśnie kończy fermentację.  
*Jan 24, 2016, 9:18 PM*