

# Black widow

- Gravity **24.2 BLG**
- ABV **11.2 %**
- IBU **60**
- SRM **37.3**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26.1 liter(s)**
- Total mash volume **34.8 liter(s)**

## Steps

- Temp **68 C**, Time **80 min**
- Temp **76 C**, Time **30 min**
- Temp **82 C**, Time **10 min**

## Mash step by step

- Heat up **26.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **30 min** at **76C**
- Keep mash **10 min** at **82C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Vienna Malt	4.2 kg (48.3%)	78 %	8
Grain	Monachijski	1.5 kg (17.2%)	80 %	16
Grain	Viking Pilsner malt	1.3 kg (14.9%)	82 %	4
Grain	Viking Chocolate Malt 1200	0.4 kg (4.6%)	68 %	1200
Grain	Rye, Flaked	0.3 kg (3.4%)	78.3 %	4
Grain	Oats, Flaked	0.3 kg (3.4%)	80 %	2
Grain	Viking Chocolate Malt 400	0.4 kg (4.6%)	68 %	400
Grain	Caramel/Crystal Malt - 10L	0.3 kg (3.4%)	75 %	20

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	53 g	60 min	10.3 %
Boil	Lublin (Lubelski)	18 g	20 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	26 g	15 min	4 %
Aroma (end of boil)	East Kent Goldings	53 g	15 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	23 g	Fermentis