

# Dragon stout

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **45**
- SRM **35.6**
- Style **American Stout**

## 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.1 kg (42%)	81 %	4
Grain	Strzegom Monachijski typ I	2 kg (40%)	79 %	16
Grain	Caramel/Crystal Malt - 120L	0.5 kg (10%)	72 %	400
Grain	Czekoladowy	0.4 kg (8%)	60 %	788

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	11 %
Aroma (end of boil)	Saaz (Czech Republic)	15 g	10 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale s04	Lager	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
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Flavor	Kawa	50 g	Boil	30 min
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