

## am stout 12

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **70**
- SRM **34.6**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **15.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.73 kg (78.1%)	75 %	5
Grain	Strzegom Czekoladowy jasny	0.19 kg (5.5%)	68 %	400
Grain	Strzegom Czekoladowy ciemny	0.19 kg (5.5%)	68 %	1200
Grain	Jęczmień palony	0.11 kg (3.1%)	55 %	985
Grain	Barley, Flaked	0.27 kg (7.8%)	70 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Galaxy	27.27 g	30 min	16.2 %
Boil	Columbus/Tomahawk/Zeus	27.27 g	15 min	15.5 %
Dry Hop	Galaxy	27.27 g	3 day(s)	16.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	6.59 g	SafAle