

## WHARFEDALE Diamond 12.4 Light Oak Podnostojeći Zvučnik

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**Cena: 53.880,00 rsd**



Since 1982, Wharfedale's famous Diamond speakers have served as the classic entry point to true high-fidelity sound, their exceptional sonic value for money earning numerous 'product of the year' accolades in the UK and around the world. This autumn, with the introduction of the all-new Diamond 12 Series, Wharfedale once again raises the bar for affordable, high-performance loudspeakers.

To develop the new range, Wharfedale has collaborated with world-renowned speaker designer Karl-Heinz Fink for the first time. Fink's track record of delivering class-leading sound from modestly priced speakers is exceptional and with the Diamond 12 Series, he and Wharfedale's team of acoustic engineers have achieved a new entry-level benchmark.

Wharfedale determined that the Diamond 12 Series should be an opportunity to start afresh. A challenge was issued to Mr Fink: how much sonic performance can you wring from a range of speakers at classic Diamond price points? And so, he and Wharfedale's team set to work, delivering clean-sheet designs without a single part unaltered from the outgoing - and more costly - Diamond 11 Series.

**Klarity  
- The  
Difference  
is Clear**

Since  
the

Diamond  
8 Series  
in 2001,  
Wharfedale  
has  
made  
the  
mid/bass  
cones  
for  
every  
Diamond  
generation  
from  
Kevlar.  
19 years  
and  
many  
award-  
winning  
ranges  
later,  
Wharfedale  
has  
developed  
a new  
composite  
called  
Klarity™.  
The  
chief  
ingredient  
of  
Klarity™  
is  
polypropylene,  
a  
material  
that has  
been  
used to  
make  
speaker  
cones  
since  
the BBC  
researched  
its use  
for this  
purpose  
in the  
1970s.  
Polypropylene  
cones  
are  
renowned  
for their  
characteristically  
low  
distortion  
and

controlled  
'breakup',  
as well  
as their  
resistance  
to  
moisture  
in the  
air.

They

also  
have a  
reputation  
in some  
quarters  
for  
sounding  
a little  
'unexciting'

**Bass/Mid  
Drivers  
Cone  
Surround,  
Magnet  
and  
Voice  
Coil**

- a  
perception

that is

largely

the

result of

mediocre

engineering.

When

designed

and

implemented

optimally,

polypropylene

cones

can

sound

enthraling,

In the  
past,  
polypropylene  
cones  
have  
often  
been  
combined  
with  
high-  
damping  
surrounds  
to  
achieve  
a  
smooth  
response  
curve.

However,  
the  
hysteresis  
of these  
surrounds  
can  
restrict  
dynamics  
and  
make  
bass  
sound a  
little  
'soft'.

For the  
Diamond  
12  
Series,  
the aim  
was to  
combine

the Klarity™ cone with a low-damping surround, thereby achieving both low colouration and expressive dynamics. This was not a simple task but, by simulating many different cone shapes and adding ribs to provide further stiffening, a flat response curve was achieved without resorting to a high-damping surround, thereby striking the ideal balance. The Klarity™ diaphragms are driven by a substantial, precision-made magnet system with an aluminium compensation ring to

minimise the effect of variations in inductance as the voice coil travels. This contributes to an absence of distortion and intermodulation generated by the motor system. The voice coil is wound on a high-power epoxy/glass fibre bobbin - highly unusual in speakers at this price level. This has the advantage of not adding eddy currents and delivering greater power handling than an aluminium bobbin, whilst also being much stiffer than the Kapton

type.

## **Treble Unit and Crossover**

The  
Diamond  
12  
Series'  
treble  
unit  
sports a  
25mm  
dome  
made  
from a  
woven  
polyester  
film with  
a high-  
loss  
coating  
to  
deliver  
open  
and  
smoothly  
extended  
high  
frequencies.

The  
magnet  
system  
and the  
front  
plate  
have  
been  
optimised  
for wide  
dispersion  
and  
uncompressed  
behaviour.

The  
front  
plate is  
flat and

exposes the dome as much as possible, with a short duct to balance the acoustic load and improve the SPL (sound pressure level) measurement.

The treble unit combines seamlessly with the mid/bass driver via a crossover network using an acoustic LKR 24dB topology.

This includes air core inductors of the type more commonly found in high-end speakers, selected because they produce the lowest distortion of all inductor types.

As the resistance of the coil is higher

than a standard laminated steel or ferrite core inductor, the magnetic structure of the mid/bass driver has been modified to compensate resulting in fast, clean bass with no distortion from the inductor.

## **Cabinet Construction**

The cabinet is a critical part of any high-performance loudspeaker. At entry-level price points, corners are often cut to constrain cost, but this is a mistake; no matter how good the drive units, their performance will be wasted if the cabinet's construction is suboptimal. For this reason, Diamond 12 Series speakers

feature  
cabinets  
constructed  
with a  
level of  
sophistication  
usually  
reserved  
for  
much  
more  
expensive  
designs.

The  
rear-  
ported  
enclosure  
of each  
model is  
precisely  
sized so  
that the  
internal  
volume  
works in  
harmony  
with the  
drive  
unit  
system  
to  
deliver  
the  
desired  
sonic  
result.

The  
cabinet  
walls  
are  
made  
from  
sections  
of wood  
fibre  
board of  
varying  
thickness,  
constructed  
in such  
a way  
as to  
subdue  
the  
identifiable  
characteristics  
of the  
cabinet's  
'sound'  
and  
ensure

the  
drivers'  
output  
remains  
unsullied.  
The  
resonant  
properties  
of each  
element  
- even  
the glue  
- were  
considered  
to  
determine  
the  
ideal  
combination  
of  
materials  
and  
placement.  
Inside  
the  
cabinet,  
Intelligent  
Spot  
Bracing  
connects  
opposing  
walls  
with a  
specific  
form of  
wood  
brace to  
achieve  
optimal  
reduction  
of  
cabinet  
resonance.  
These  
braces  
are  
precisely  
modelled  
by  
computer  
simulation  
to  
improve  
upon  
the  
commonplace  
'figure  
of eight'  
brace,  
which  
can

have  
the  
effect of  
transferring  
resonance  
from  
one wall  
to  
another.

<b>Speaker type</b>	2.5-way floorst
<b>Enclosure type</b>	Bass reflex
<b>Treble driver</b>	25mm textile d
<b>Mid/bass driver</b>	150mm Klarity
<b>Dedicated bass driver</b>	150mm Klarity
<b>Sensitivity (2.83v @ 1m)</b>	89dB
<b>Recommended amp power</b>	30-200W
<b>Peak SPL</b>	102dB

<b>Nominal impedance</b>	8Ω compatible
<b>Minimum impedance</b>	5Ω
<b>Frequency response (+/-3dB)</b>	40Hz-20kHz
<b>Bass extension (-6dB)</b>	35Hz
<b>Crossover frequency</b>	2.1kHz
<b>Dimensions (HxWxD)</b>	1150x200x350
<b>Weight (each)</b>	22.4kg