

Elastic shock and vibration absorbing materials

NBR

Colour: Black

Description: High Performance vibration & shock damping material with excellent chemical resistance properties

Construction: Moulded from high grade nitrile (NBR) rubber, in various hardnesses to suit desired loadings, natural frequency and isolation efficiency.

Applications:

Passive isolation: Sensitive equipment such as Measuring, Test and Electronic equipment

Active Isolation: Impact machinery including mechanical and hydraulic presses, turret punch presses, injection moulding machines, hydraulic equipment and structural steelwork.

Variants NBR *P1 Plain one side, treaded one side.

Other properties

Creep: Minimal

Operational Life: 65 years + (subject to environment)

Oil and Chemical Resistance: Conditional, full chemical resistance table available on request.

Natural Frequency Range: Low to medium

Damping: High

Working Temperature Range: °C: -30 to + 120
(Properties subject to change outside range °C: -10 to + 80)

Standard Sheet Sizes mm:

1000x500, 500x500 and other sizes to order. Pads can be supplied against customer drawings including holes, slots etc.

Cutting and drilling:

Cut with circular saw, band saw or water jet, holes with drill or punch

Health and Safety:

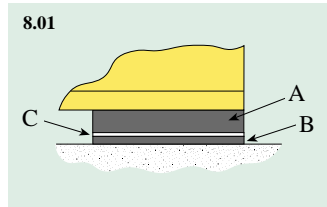
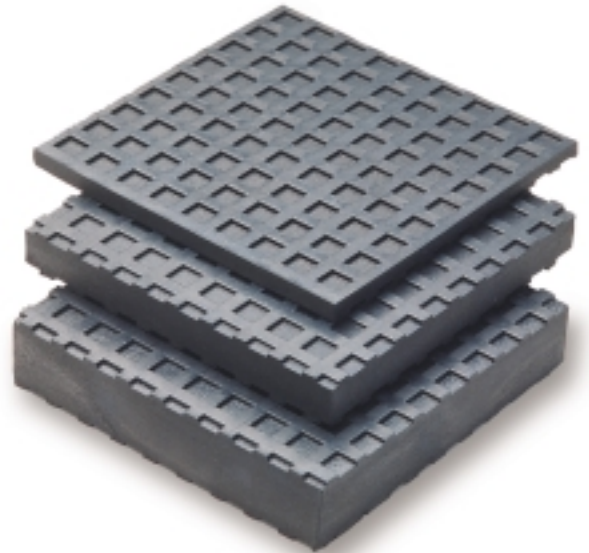
Wear protection against any dust created when cutting and or drilling

Building Materials class: B2

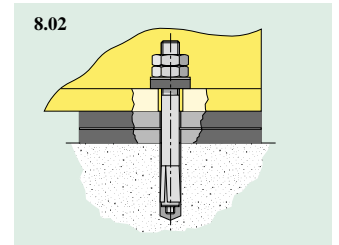
Compression set: 1.27% at 23°C

70 hours 15% initial deflection 30 mins unload.

Normal working life: 65 years +



Free standing installation on multiple pads A & B with metal shim(s) C for levelling.



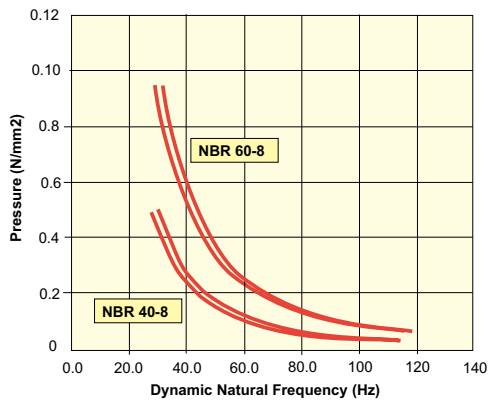
Bolt through pad installation using single, or multiple pad configuration, AW washers and bushes.

NBR			NBR-40-8	NBR-60-8	NBR-70-8	NBR-70-15	NBR-70-25	NBR-70-50													
Static Compression Modulus	Ecs	N/mm2	3.4	7	12	12	12	12													
Specific Spring Constant	SSC	N/mm/mm2	0.43	0.88	1.50	0.80	0.48	0.24													
Thickness	T	mm	8	8	8	15	25	50													
Damping	C/Cc		0.1	0.09	0.09	0.09	0.09	0.09													
Coeff. of Friction (dry)			0.9	0.8	0.8	0.8	0.7	0.7													
Hardness Shore A IRDHA	+/- 3		40	40	70	70	70	70													
Ratio Dyn to Static Modulus	D		5	5	5	5	5	5													
Maximum Static Pressure	MSP	N/mm2	0.5	1	1.5	1.5	1.5	2													
Maximum Static Pressure	MSP	kg/cm2	5	10	15	15	20	20													
Maximum Overload Pressure	MOP	N/mm2	1	2	3	3	3	4													
Static Loading Pressure																					
	N/mm2	mPa	kg/cm2	fsv	fdv	d	fsv	fdv	d	fsv	fdv	d	fsv	fdv	d	fsv	fdv	d			
	0.10	0.10	1	33	73	0.24	47	105	0.11	62	138	0.07	45	101	0.13	35	78	0.21	25	55	0.42
	0.20	0.20	2	23	52	0.47	33	74	0.23	44	97	0.13	32	71	0.25	25	55	0.42	17	39	0.83
	0.30	0.30	3	19	42	0.71	27	61	0.34	36	80	0.20	26	58	0.38	20	45	0.63	14	32	1.25
	0.40	0.40	4	16	37	0.94	24	53	0.46	31	69	0.27	23	50	0.50	17	39	0.83	12	28	1.67
	0.50	0.50	5	15	33	1.18	21	47	0.57	28	62	0.33	20	45	0.63	16	35	1.04	11	25	2.08
	0.60	0.60	6							25	56	0.40	18	41	0.75	14	32	1.25	10	23	2.50
	0.70	0.70	7							23	52	0.47	17	38	0.88	13	29	1.46	9	21	2.92
	0.80	0.80	8							22	49	0.53	16	36	1.00	12	28	1.67	9	19	3.33
	0.90	0.90	9							21	46	0.60	15	34	1.13	12	26	1.88	8	18	3.75
	1.00	1.00	10							19	44	0.67	14	32	1.25	11	25	2.08	8	17	4.17
	1.25	1.25	12.5							17	39	0.83	13	28	1.56	10	22	2.60	7	16	5.21
	1.50	1.50	15							16	36	1.00	12	26	1.88	9	20	3.13	6	14	6.25
	1.75	1.75	17.5													8	19	3.65	6	13	7.29
	2.00	2.00	20													8	17	4.17	6	12	8.33

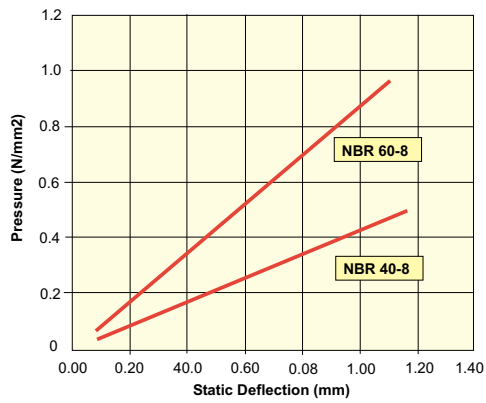
This information is for guidance only

Vertical		
Static Natural Frequency	Hz	fsv
Dynamic Natural Frequency	Hz	fdv
Static Deflection	mm	d

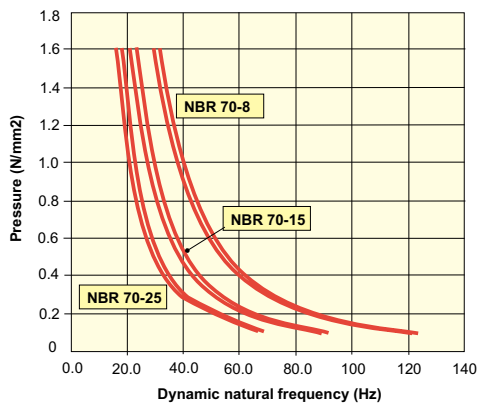
Pressure v Dynamic Natural Frequency
NBR 60 and NBR 40



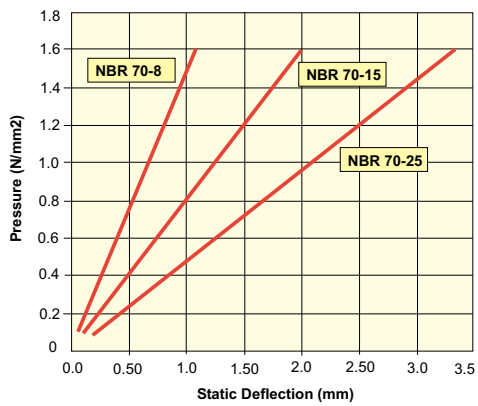
Pressure v Static Deflection
NBR 60 and NBR 40



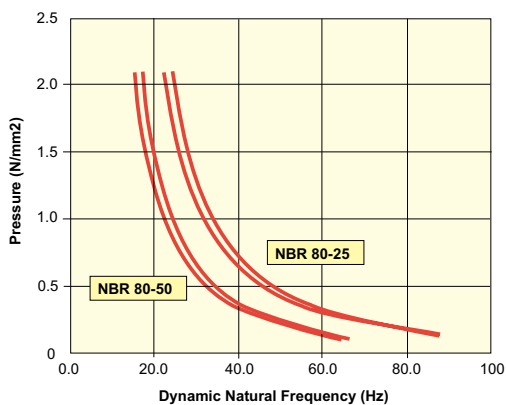
Pressure v Dynamic Natural Frequency
NBR 70



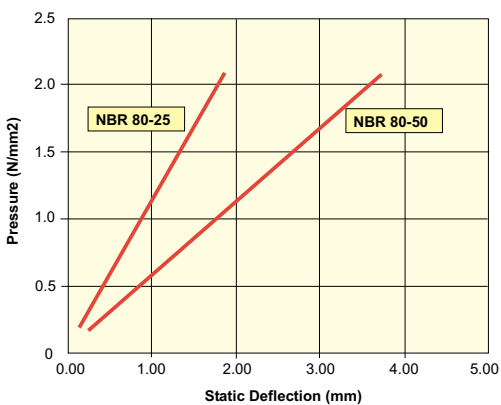
Pressure v Static Deflection
NBR 70



Pressure v Dynamic Natural Frequency
NBR 80



Pressure v Static Deflection
NBR 80



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