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[] [] [] [] Byung-Youn Moon

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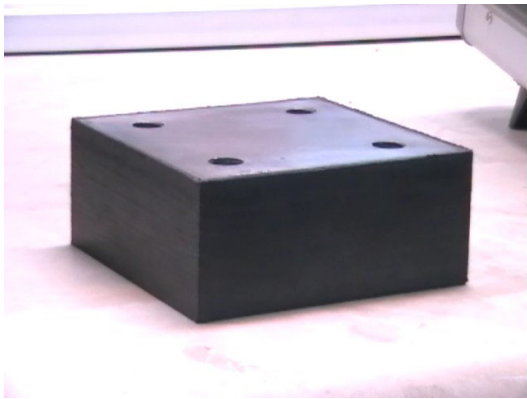
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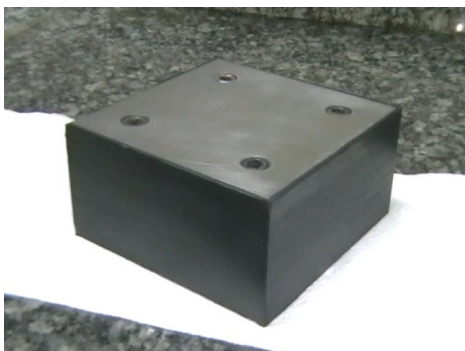
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t_r

n_r

$n_{f,s}$

t

$t_{f,s}$

$t_{T.&B.Plates}$

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GPa

$s = a / 4t$: t a

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S	$t_{T\&B.Plates} (mm)$	$t_{f,s} (mm)$	$t (mm)$	$n_{f,s}$	n_r	(mm^*mm)	$t_r (mm)$	(mm^*mm)	
/	/	/	/			*	/	*	
/	/	/	/			*	/	*	
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kN . () ΔP P

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ΔP (kN)	P (kN)	
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ΔP

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± mm kN

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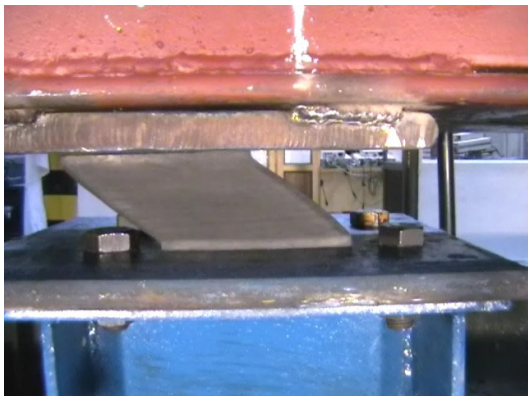
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kN kN

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Fiber reinforced elastomeric isolator
Sp. No. 3
G. Dehghani & A. Aghakouchak
T.M.U., IRAN

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$$E_c = \frac{k_v t_r}{A_{f,s}}$$

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E_c

k_v

$A_{f,s}$

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kN

E_c

k_v

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kN

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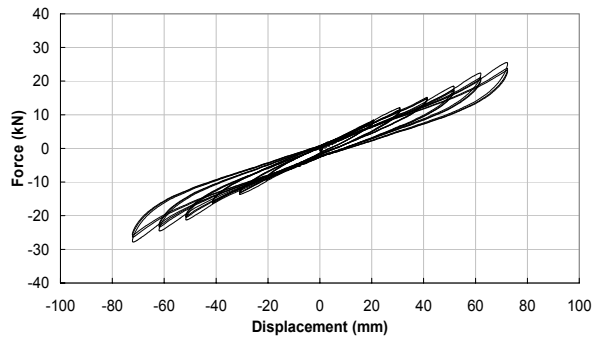
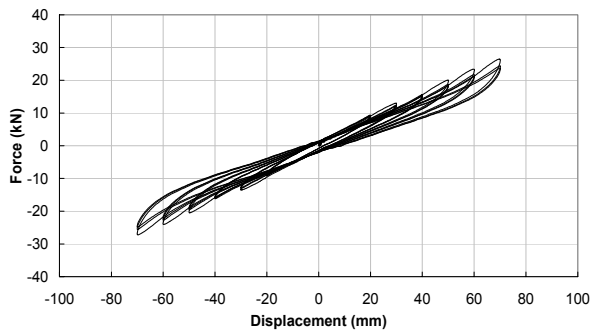
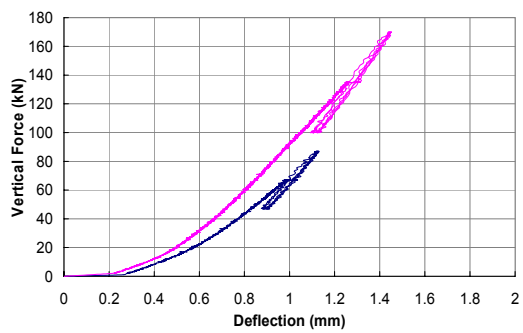
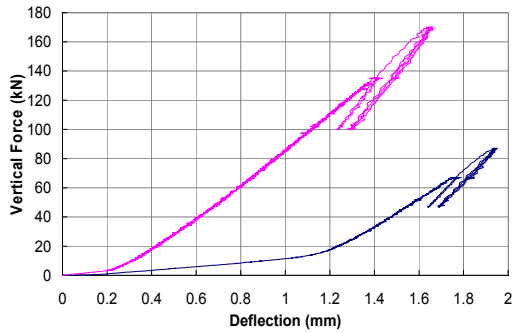
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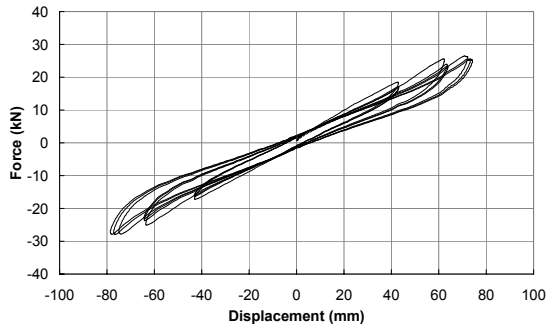
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$= (\pm) \text{ kN}$		$= (\pm) \text{ kN}$		
$k_v (\text{kN/mm})$	$E_c (\text{MPa})$	$k_v (\text{kN/mm})$	$E_c (\text{MPa})$	
/	/	/	/	
/	/	/	/	
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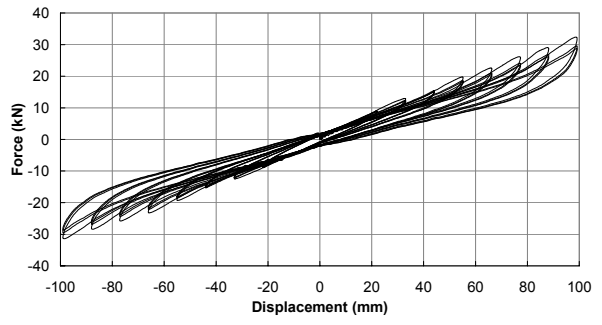


kN

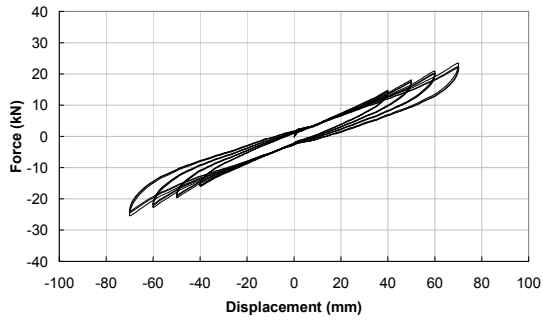
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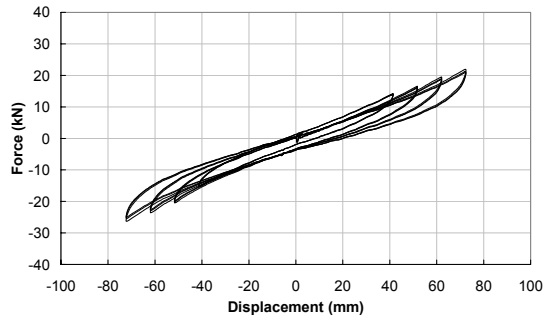
kN



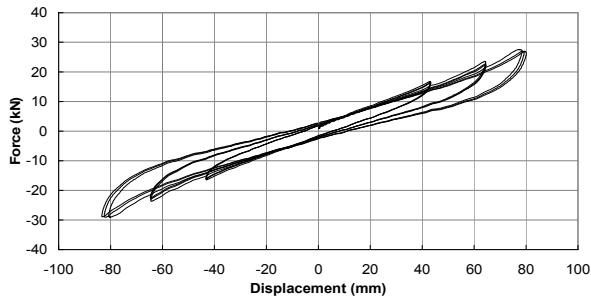
kN



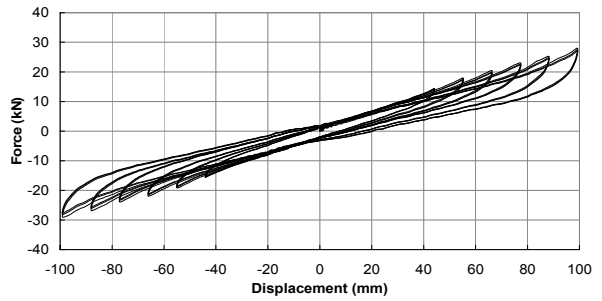
kN



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F_{\max}
 F_{\min}
 D_{\max}
 D_{\min}

$k_{H,eff}(\gamma)$

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$$k_{H,eff}(\gamma) = \frac{F_{\max} - F_{\min}}{D_{\max} - D_{\min}}$$

$$G_{eff}(\gamma) = \frac{k_{H,eff}(\gamma)t_r}{A}$$

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$$\zeta_{eq} = \frac{W_D}{2\pi k_{H,eff}(\gamma) D^2}$$

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 W_D

$$D = \frac{D_{max} - D_{min}}{2}$$

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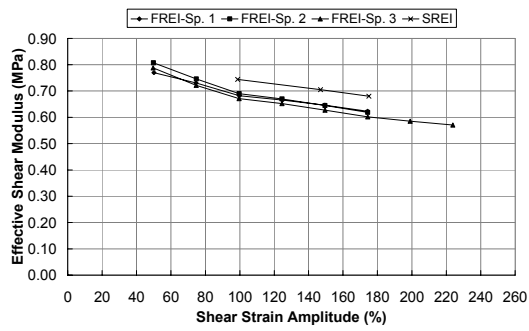
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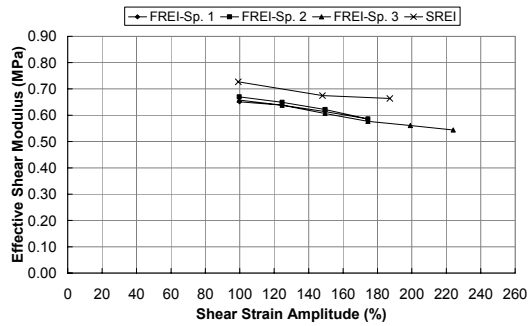


kN

FREI :

Sp. :

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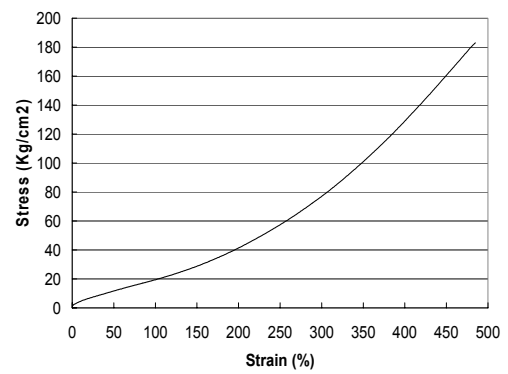
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$$\frac{K_V}{K_H} = \left[\frac{f_V}{f_H} \right]^2$$

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$$f_V = \frac{1}{T_H} \sqrt{\frac{K_V}{K_H}}$$

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K_V

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K_H

Sp. :

kN

(HZ)

f_V

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FREI :

f_H

(HZ)

T_H

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$$A_{f,s} \cong A$$

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$$\frac{k_v}{k_{H,eff}(\gamma)} \cong \frac{E_c}{G_{eff}(\gamma)}$$

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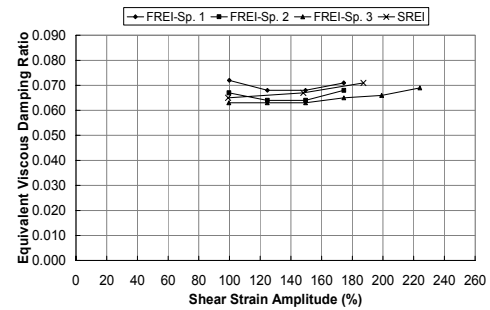
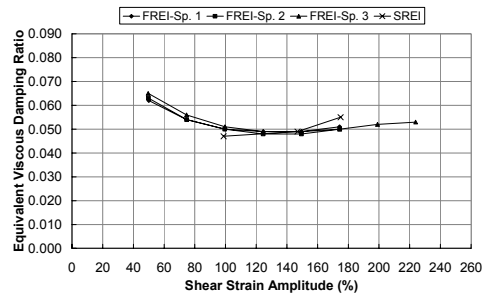
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kN

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Sp. :

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kN

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|-------------------------------|------------------------------------|
| 1- Tilting Stiffness | 6 - Force-free area |
| 2 - Fiber cords reinforcement | 7 - Hot curing epoxy resin |
| 3 -Individual fibers | 8 - Strain crystallization process |
| 4 - Bulk compressibility | 9 - Single fibers |
| 5 - Loaded area | 10 - Thread |

